E-MAIL METHOD AND SYSTEM

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Cross-Reference to Related Applications

This application claims priority under 35 U.S.C. §119(e) to co-pending U.S. Provisional Patent Applications:

U.S. Application Serial No. 60/411,835, entitled "Systems and Methods for Online Direct Marketing on Web-Based E-Mail Systems and Websites Over a Network," filed on September 18, 2002;

U.S. Application Serial No. 60/422,293, entitled "Systems and Methods for Online Direct Marketing and Advertising on E-Mail Systems Over a Network," filed on October 30, 2002;

U.S. Application Serial No. 60/457,407, entitled "Systems and Methods for Online Marketing and Advertising on E-Mail Systems and Websites Over a Network," filed on March 23, 2003;

U.S. Application Serial No. 60/478,212, entitled "Systems and Methods for the Enhancement of E-Mail Client User Interfaces and E-Mail Message Formats," filed on June 12, 2003; and

U.S. Application Serial No. 60/480,076, entitled "Systems and Methods for Online Direct Marketing and Advertising on Registration Based Websites and Web-Based E-Mail Systems," filed on June 20, 2003.

Each of the above-referenced provisional patent applications is incorporated by reference herein in its entirety.

Systems and methods for online direct marketing on web-based email systems and websites over a network.

BACKGROUND.

Direct mail, Coupons and Free Standing Inserts (FSI) in Sunday newspapers is a huge business. It is not only effective but also receivers of these promotions find value in it. It allows merchants a chance to reach new customers and consumer-packaged goods manufacturers to introduce or promote products to a wide audience. The receivers have a chance to save money and an incentive to try out new products.

The Internet looked poised to bring a whole new level of effectiveness and personalization to direct mail, coupons and FSIs. Until now the methods introduced on the Internet include direct offers via email and coupon portals. Unfortunately both these methods have proven ineffective.

Email has proven to be an inadequate medium for online promotions because of its inherent "free" nature. In the offline world of postal direct mail, it costs promoters to send offers to households. The promoter has to pay for printing and mailing costs which would range anywhere from 40 cents to a few dollars for each household mailed, therefore, even if the promoter could obtain the address of every household in the US it would not be cost effective to send them to every single household. But, because sending emails are free, promoters have no barrier to send an email to every email address they can get their hands on - leading to the practice of sending massive amounts of untargeted unsolicited email - Spam. Not every promoter participates in spamming, but because of the rampant practice of Spam, users have become numb to offers received through email - whether they be targeted or not - thus crippling a potentially effective channel for direct marketing and promotions.

Coupon portals such as MyCoupons.com, Valpak.com and Coolsavings.com have been set up to serve coupons of merchants and consumer goods manufacturers to Internet users. Unfortunately, most users do not actively search for coupons and offers; they merely take up the offer when it is presented to them, either through coupons received in the mail or in the Sunday newspapers. The majority of the users who frequent coupon portals are "coupon fans" and penny pinchers, not necessary the kinds of demographics the promoters are looking for.

Web-based email providers like Hotmail and Yahoo have also set up their own direct-email services where users opt-in to receive offers from merchants who sign up with the providers to send targeted offers to users of these web-based email providers. One such service is Hotmail's MSN Featured Offers **(FIG. 10a)**. One of the benefits of this method is that the promotions are tagged differently than normal email, giving the promotion a sense of legitimacy. The other benefit is that these promotions often do not take up space in the user's service disk quota. Nevertheless the drawback is that recipients need to opt-in to receive these promotions and the promotions still clutter the user's inbox and they do not expire. One of the further drawback is that these promotions suffer the drawback of email, where the user is forced to open the promotion to see its contents as the subject line of the promotion such as "HP Printer 5500C for $100" often does not provide enough information for the user (What is the HP 5500C? How does it look like?). One method used by email provider Greenmail.com is where promotional graphics are shown instead of text in the listing of promotional offers **(FIG. 10b)**, this method suffers from a cluttering of the screen as static graphics take up a large portion of the browser screen space as opposed to text.

Aside from the major web-based email providers like Hotmail and Yahoo, there are many smaller Internet Service Providers (ISP) who provide web-based email service to their customers. Since these ISPs are focused mainly on the operations of their network, they do not have the resources to set up their own direct marketing organization and would benefit from being part of an affiliate

system that would supply the technology and direct marketing content to them.

For further reference to prior art, refer to U.S. Pat No. 6,336,099 to Barnett (BrightStreet) and the other prior references made in the patent.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide marketing systems and associated methods to deliver targeted promotions to web-based email users, email users and web-portal visitors that are associated with predetermined marketing profiles. These profiles allow the web-based email providers to allow marketers to target the recipients while preserving the personal information of each recipient.

The present invention may be hosted on a web-based email provider's system or be hosted by a 3rd party and the promotions be delivered over a network to multiple web-based email systems.

It is a further object of the present invention to provide marketing systems and associated methods to deliver targeted promotions to web-based email users within the web-based interface but without taking up the user's email disk quota space, with the ability to manage these promotions from a server separate from the server that manages the user's email content.

It is still a further object of the present invention to provide marketing systems and associated methods to deliver promotions to web-based email users in a specialized folder within the web-based email interface, in a special promotion only section within the inbox of the web-based email interface or inline, inside the user's inbox together with the user's email. The promotions may have expiry dates, when which the promotion will be automatically deleted from the system.

It is still a further object of the present invention to provide marketing systems and associated methods to allow a method to preview a promotion directly from the an aggregate listing of promotions, or a mixed listing of promotions and email without opening the message itself, allowing the promoter to put creative mechanisms such as graphics, animation or multi-media in the preview to entice the user to open the promotion itself. The preview routine further helps the user by giving the user a better idea of the content of the promotion than by guessing from the subject line of the promotion.

It is still a further object of the present invention to provide marketing systems and associated methods to users of the web-based email service to select promotions and coupons online and send them to be printed by a separate system and mailed through the postal service to the user to be redeemed at a store. The systems and method of the present invention therefore enables promotion recipients who do not have access to a printer to take advantage of these promotions as well as provide coupon issuers who do not want their coupons to be duplicated a means to participate in online promotional methods.

In a preferred embodiment, web-based email providers collect information about users and this information is categorized and created into profiles. These profiles and not the actual customer information is transferred to a central system that provides the promotions for a network of web-based email providers.

In a preferred embodiment the invention is realized over a networked computer environment, where in promoters create promotions and specify the target profiles of their intended recipients, wherein the system will automatically place the promotions into specialized promotion folders in the web-based email providers' users' accounts. Users who log into their account will be able to click to the promotion folder(s) and preview or purview the promotions.

In a preferred embodiment, the listings of the promotions will each include a triggering routine that will trigger the showing of a preview - either an image or graphic, an HTML layer overlay or a

Macromedia Flash overlay graphic or any other routines obvious to those skilled in the art. The triggering routine in a preferred embodiment will be an icon.

In a preferred embodiment, the invention is realized over a networked computer environment, wherein a promotions server resides as a node on the network. The various promotions are stored on the network of the server and preferably on the server. When, for example, a user using a browser accesses the web page that is affiliated with the promotions server process, which contains the listings of the promotions, the affiliated page's encoding includes content served by the promotions server process. The affiliate web-based email provider's web server would also contain a client process that will send encoded profile information to the promotions server to enable the server to serve the correct promotions to the user.

The user will be able to view a listing of promotions when logged in to his web-based email account. Upon moving the mouse on an offer listing or a triggering icon, a JavaScript or VBscript code is executed on his browser that will make a small overlay window appear showing a preview of the content of the promotion. Upon clicking on a link on the listing, the browser will then send a request to the affiliate web-server process, which in turn forwards the request to the promotions server to load the content of the promotion.

In a preferred embodiment, the previews of the promotions will be loaded only after the visible content of the listings are loaded to enable the page to look as if it has completed loading earlier. The previews of the promotion, which may contain graphics and other audio or visual elements, will load in the background while the user is viewing the listing. This can be achieved using script code such as JavaScript that is loaded into the user's browser, server code, or a combination of both.

In a preferred embodiment, the invention includes a central printing server that is connected to the promotions server over a network. The central printing server will print out promotions and coupons that will be mailed to users of affiliated web-based email providers.

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

FIG 1. is a block diagram illustrating the relationship between a large networks and one embodiment of the system and method for direct marketing over a network of the present invention.

FIG 2. illustrates a web-based email interface of an affiliate with a graphical link to the special promotions folder in one embodiment of the present invention.

FIG 3a. illustrates an example of a list of promotions in a special promotions folder within the interface of a web-based email provider in one embodiment of the present invention..

FIG 3b. illustrates an example of a preview triggered by the hovering of the mouse on top of an icon that serves as a triggering routine in one embodiment of the present invention.

FIG 3c. illustrates an example of content within a promotion served in one embodiment of the present invention.

FIG 4. illustrates an example wherein a portion or whole of the promotions sent to the user of a web-based email provider is listed in the inbox folder in one embodiment of the present invention.

FIG 5. is a diagram explaining the processes performed in a preferred embodiments.

FIG 6. is a flowchart of a software routine for a promotion issuer according to a preferred embodiment.

FIG 7. depicts the flow of information in a system delivering online promotions to consumers

according to a preferred embodiment.

FIG 8. depicts the sequence of processes involved in displaying a listing of promotions to users of a web-based email provider according to a preferred embodiment.

FIG 9. is a flowchart of a software routine for a web-based email user according to a preferred embodiment.

DETAILED DESCRIPTION OF THE FIRST PREFERRED EMBODIMENT

In **FIG 1.** The basic architecture of the network **10** comprises at least one affiliate web-based email (WebMail) site **11**, the user's browser **24**, a promotions (promo) server web site **20**, and its supporting account management system **19**, storage **22**, and a central print server **23**. The architecture may include one or more affiliate Portal websites **13** which may be a news portal, financial portal or any other content or e-commerce based website familiar with one skilled in the art, one or more affiliate POP e-mail provider's systems **15**, and one or more affiliate ISP custom user interface sites **17**. An example of a ISP custom user interface site is the AOL user interface which user's have to launch in order to get online.

Each affiliate system will include a client process **12, 14, 16, 18** that is responsible for the integration and communication between the affiliate server processes **11, 13, 15, 17** and the promotion server **23.**

The discussion of the invention will now focus on the web-based email affiliate systems **11**, although it equally applies to the other affiliate systems **13, 15, and 17**.

Overview

FIG 7. is an overview showing how the information and activities flow from the creation of the online promotion to its selection and printing by the consumer or central printing system and its ultimate redemption.

The process starts with the promotions issuer **700** who creates the promotion (which may include coupons and certificates) and accompanying recipient targeting instructions and uploads them to the promotions server **701** which receives the instructions and content which are stored in storage. The web-based email user, through his PC **706**, logs in to the affiliate web-based email server **702**, to check for email and at the same time decides to check for promotions. The promotions client on the affiliate web-based email server **702**, sends information about the user (but not personally identifiable information like email or name) such as zip, age, online behavior profile, and personal preferences to the promotions server **701** to retrieve the targeted promotions. The data sent may include a generated ID of the user. This ID may be used to track a user's promotions redeeming behavior - however, the ID does not reveal the user's name or email address. The promotions server **701** serves up the promotions and logs the event in its records for billing and reports purposes.

The promotions then get served to the user's PC **706**, wherein the user may save or print the promotion through an attached printer **707**. Alternatively, if a user has signed up for an enhanced service for coupons to be printed and mailed to the user, the promotions information will be passed from the promotions server **701**, to a central printing server **703** where the user's selected promotions and any additional relevant promotions may be included or printed through the attached printers **704** and mailed to the user. The kinds of additional promotions included in the package mailed to the user may depend on the user's past redeeming information if available, which is stored on the promotions server **701.** These additional promotions may include printed coupons not available electronically. In order to mail the promotions to the user, the user would have to agree to share his address and any personally identifiable information with the promotions service provider, which is sent with the promotion printing instructions from the

promotions server **701** to the central printing server **703.**

The electronically saved and printed promotions may contain the expiration date, a unique serial number and a barcode with the personal identification number (PIN) of the consumer. This identification data is preferably assigned by the promotions server **701**, the PIN number can be pre-assigned to individual consumers when they register for the system.

Anytime before a promotion expiration date, the consumer may use one of two methods to redeem it. Firstly, the user may bring the printed promotions or coupon **705, 709** to the store to **708** to redeem the promotion. Secondly, in the case of a promotion for an online, the user may redeem the electronic promotion by transmitting the electronically saved promotion coupon through the network to the merchant's web site. In other forms of promotions, the user may simply use the unique serial number of the promotion or coupon to redeem the offer.

When the expiry date of a promotion is reached, the promotion will be automatically removed from the system.

Information can also be passed back up through the system, first to the promotions server **701**, from the web-based email web-server **702** and then on to the promotions issuer **700.** Thus the promotions issuer can download information about the promotion results, consumer demographical information and cost.

FIG 5. shows the various components of the said invention in a preferred embodiment. It includes the affiliate web-based email provider's application **501,** email storage **507** and user profile storage **508** resident on the web-based email provider's server **500**. The promotions system includes the promotions client (promo) **502**, promotions serving application **503**, promotions account management application **505,** billing and tracking applications **506,** promotions storage **510**, promoter accounts storage **511**, and the proxy-user profile storage **509** - all resident on the promotions server **504.**

User information is aggregated by the affiliate web-based email provider into distinct profiles **513**, which are stored in the provider's local storage **508** in a user profile table **512.** The table contains user identifiable personal information such as name, address and email, but only the profile information **513** is available to the promotions client **502,** in order to retrieve targeted promotions for a particular user on the web-based email system. In this case, a unique proxy ID **514** may also be generated by the web-based email application **501** which may be shared with the promotions client and is passed to the promotions server to create more targeted promotions based on usage patterns and preferences, as well as the ability for the user to save promotions. This information is stored in the proxy-user profile, history and preferences storage **509.**

Web-based email users may subscribe to a premium service where the user can designate promotions and coupons to be printed and mailed to the user by a separate system. When users opt for this service, the proxy-user storage **509** also stores the user's email address, home address as well as other personally identifiable information.

User Software Routine

FIG. 9 displays the software routine for the consumer - in this embodiment the web-based email user. It starts **900** with a display of the web-based email provider's public home page **901**. The user logs in **902** and is presented with the main menu **923**. The user may check his email **903** upon which both a list of email **904** and a subset of promotions in his promotions folder **905** is displayed. The promotions may appear as a separate listing or integrated into the email listing itself **904**. The user may then choose to read his email **906** or to click on a link to check the promotions in his promotions folder **907**. The user may also opt to select a promotion directly from the inbox **904**.

The user activates the promotion folder **907** by clicking a link from the main menu **923** or from his inbox **904**. The web-based email provider's application will interact with the promotions client, which interacts with the promotions server to display a list of promotions and their associated previews **908**. The user may select to view a promotion **909**. While viewing the list of promotions **908** or viewing a particular promotion **909**, the user may rate the promotion **910** to show his interest in the promotion or promotion type, forward the promotion to an email address **911**, save the promotion **912** to view or print at a later time, print the promotions or coupons **913** on a printer attached to his computer, or to select an option for the promotion or coupon to be printed and mailed **914** to his address. In certain cases, where the coupons are to be mailed directly from the promoter or merchant, the user will be prompted to release their personal identifiable information **915** such as home address to the promoter.

From the main menu **923** the user may also search or browse for promotions **916** according to categories such as Automotive, Restaurants, Consumer Goods, Grocery, Services and Online Stores. The user may enter search criteria to locate merchants or promoters by name or location within a certain geographic zone. When the user executes the search or browses, the promotions client will send the queries to the promotions server wherein the results of the queries will be displayed **917** in the user's browser.

To access more personalized promotions users may sign-up for a premium version of the promotions service (AdBox Plus) **918**, wherein the user will be prompted to agree to service terms **919** and then the user is prompted to enter personal identifiable information **920** such as name, address, zip, age, promotions preferences and email. The promotions server will log the user's personal information and service agreements in a database storage **921**. The enhanced personal information provided will allow the promotions system to send more targeted promotions to the user using techniques such as data mining. The promotions server may also combine this enhanced user information stored in the service storage **921** with other techniques such as user ratings of promotions **910**, to offer a more personalized experience for the user and provide a promoters with a more highly effective channel to promote their services or products.

The user may also choose to perform other email functions **922** commonly offered within most web-based email services, such as address book, email filtering and email blocking.

Details on the User Interface Processes

As shown in FIG 1.the user will access his web-based email account using a browser **24** through a network to the affiliate web-based email website **11**. A preferred embodiment of the network runs on top of TCP/IP and HTTP. Upon accessing the web-based email provider's web site **11**, the user logs on an will be presented with his email-box **200**, an example of which is featured in FIG 2. A prominent graphical link **201**, is placed within the interface of the web-based email interface **200**. The graphical link **201**, entices the user to check for promotions, which may be of interest to the user.

Upon clicking on the graphical link **201**, the user will be shown the promotions folder **300** depicted in FIG 3a. In this embodiment, depending on the affiliate's preference, two different methods can be used to display the folder. In one method in FIG 1, the promotions folder will be served by the promotions client **12** resident on and integrated with the affiliate web-server **11**, and the other method, the promotions server **20** will serve the promotions folder over a network **10**. In the first method, the promotions client **12** will interact with the promotions server **20** to pull the content needed to generate the promotions folder and ensure the correct targeted promotions are shown to the user, whereas in the second method, the promotions server **20** will emulate a look and feel of the affiliate's website **11** and generate the promotions folder at the promotion server's **20** end.

Promotions Preview Process

The promotions folder **300** in FIG 3a. will feature a plurality of promotions **301** listed either in date, name, category, distance or other criteria sorted order. Each line of the promotions listing **301**, will feature an icon **302** that will trigger the preview for that promotion. **FIG 3b** illustrates a diagram of a promotions folder **310**, wherein the user has his mouse hovered over a preview triggering icon **311,** where the preview for the promotion is currently visible (active) **312.** The preview **312** will automatically disappear (deactivate) after a set period of time, after the user has moved his mouse away from the triggering icon **311** or when the user movies his mouse on triggering icon **311** of another promotion. The method to perform the preview involves the JavaScript browser scripting technology and dynamic HTML(DHTML), wherein, the preview is a DHTML layer manipulated by JavaScript. The DHTML layer may contain a plurality of preview content, which may include graphics, audio clips, HTML content, Macromedia Flash files, Java Applets or any other routines familiar to those skilled in the art.

Specifically, in this preferred embodiment of the invention, each preview **312** is keyed to appear directly under the listing of the promotion **313**, appearing like a drop-down layer sliding out from under the promotion listing. Other preview methods may include an animated graphic moving across the current browser window with accompanying audio.

The total payload of all the previews in the promotions folder **310** listing may be quite huge, thus slowing down the overall loading of the promotions folder. This effect is mitigated by ensuring that the initial loading of the page does not include the loading of the "heavy" objects in the preview content, such as graphics. One method to achieve this is to initially put in lightweight content or images in place of the heavyweight graphical preview content **312**, during the serving of the promotions folder (in the HTML code), then triggering the loading of the heavyweight graphical preview **312**, by a JavaScript code after the promotions folder page has finished loading to the user's browser. The JavaScript code will load the heavyweight graphical previews from the promotions server, and replace the lightweight content or images with the heavyweight content before the previews **312** are shown. Another method to achieve a "fast load" of the promotions folder **310** is to activate the loading of the heavyweight content only after the user has triggered the preview loading routine **311**. This method may result in the user being subjected to a delay in the loading of the preview. In this embodiment of the invention, both methods are used.

A preferred embodiment of the invention further includes the ability to load preview content using a predictive loading algorithm to determine the order in which preview content are loaded in the background. The algorithm may take into account the priority given to the promotion and the size of the preview content. In addition, the algorithm may load previews based on the real-time triggering pattern of the previews by the user, which may include the proximity of non-yet-loaded previews from previously viewed and loaded previews. An example would be when the user triggers a preview **314**, any not-yet-loaded previews **315** in close proximity to the triggered preview **314** would be loaded in the background.

Another suggested enhancement to this feature is to take advantage of the Keep-Alive feature of the HTTP protocol (persistent HTTP) wherein a series of requests for content can me made on a single TCP/HTTP connection to the promotions server allowing the content to be loaded faster. Other methods to achieve dynamic loading may include using technologies such as Flash and Java or other routine familiar to those skilled in the art wherein, the preview content may be streamed to the browser giving the user an impression that the content is loading quickly.

In cases where the network is slow and there is considerable delay loading a preview after a user has activated the preview trigger, a routine is executed to delay the appearance of the preview until the preview has completely loaded. During this delay, an animation can be shown to signal to the user that the content is currently loading.

FIG. 3c depicts an example of a body of a promotion. The promotion page **320** consists of the promotion content and associated coupons **321**, options (links) for the user to print, have the

coupon mailed to him, to save the coupon to be viewed later, to forward the coupon to an email address and an option to be reminded to use the coupon at a later date **322.** The promotion page also consists of links to applications such as mapping directions and store locators **323.** These applications can either be hosted locally at the promotions server, or be integrated over the network with an external mapping or locator service such as MapQuest.

FIG 4. depicts an inbox **400** of a web-based email provider that contains a "rolling" snapshot, of promotions **401** in the promotions folder. The snapshot in a preferred embodiment of the invention is displayed in a separate section on the page than the listing of the user's email **402.** An alternative approach would be to mix the promotions listing **401** within the user's email listing **402.** In this approach, the preview routine will continue to function for the promotions. A suggested enhancement would be to allow the preview routine to work on normal email as well, by using a routine to read a portion of an email stored in storage and integrate it into the overall preview system.

FIG 8. traces the sequence of processes executed between the time the user logs in **800** to the web-based email system until the promotions folder(Ad Box) is displayed to the user **806.** The user logs in to the web-based email system **800** wherein the web-based email server authenticates the user **801** and a token **802** is sent to the browser identifying that the user has logged in. This token may be a cookie or any other secure mechanism familiar to those skilled in the art. The web page showing that the user has logged in is displayed to the user **803.** During this time, the promotions client receives data from the web-based email server, which may include demographics information or a composite or proxy ID of the user. This information is then sent across the network to promotions server to create the content of the user's promotions folder **804.** The process to create the content of the user's promotions folder **804,** includes using the demographics and any other information about the user's preference and historical behavior to select relevant promotions for the user. This process **804** may be performed in real-time. In cases where a proxy ID (an ID generated by the web-based email provider, not revealing any private user's information such as email) is used, a database entry may be created for each user on the promotions server to store relevant promotions for the user. In the case where the proxy ID is used, the promotions folder may simply be the process of retrieving the promotions keyed in the user's promotions table in the database. Other algorithms familiar to those skilled in the art may be used to create the promotions folder.

The promotions served are then tracked and logged **805** for billing purposes and the promotions folder page is assembled by the promotions client and displayed to the user.

Promoter Software Routine

FIG. 6 displays the software routine for the promoter. It starts **600** with a display of the web-site portal of the promotions server. At the website, the promoter may choose to sign up **603** and create an account with the service provider wherein the promoter will enter his payment options such **604** credit cards, invoice billing or through an online service such as PayPal.

From the main page of the portal, a registered promoter may log-in to the site **602** by authenticating himself, either by using a user-id and password or by other authentication mechanisms familiar with those skilled in the art.

After the promoter has been authenticated, the promoter will be shown the main menu **621,** where he will be able to create new promotions. To create a new promotion, the promoter will use the system to browse templates of promotions **605,** these templates are visual and content promotion templates wherein, the structure of the promotions are fixed and the user needs only to popular certain areas within the template to develop a complete promotion. After selecting the template, the promoter then proceeds to enter details about the promotion **606,** such as the coupons, offers, graphical elements, expiry date, promotional codes and text. The promoter is

then prompted to enter targeting parameters for the promotion **607**. Targeting parameters may include demographics information such as zip, age, and country, behavioral and user preferences information, preferred web-based email provider network, and the amount of promotions to deliver. The amount of promotions may include the number of impressions (times) the promotion is shown, the number of users or web-based email accounts the promotions are delivered or the number and types of profiles used in targeting the recipients of the promotion.

Finally, the promoter will be presented with the cost of the promotion **608**, upon which the promoter may select different payment options, such as credit card, invoice or through an online payment service **608**. When the user has completed the transaction, the promotion and billing information will be stored in storage **609**.

From the main menu **621**, the promoter may also display results of current or past promotions **610**. From the list of promotion results **610**, the promoter may choose to reuse an old promotion to create a new promotion **611**. The promoter may also view detailed reports **612** including billing **613** and statistics information of past promotions **614**, which may reveal such information as what kinds of recipients read or opened the promotion and which zip constituted the most response.

The system also allows promoters to conduct splits, the practice of sending different ads to different recipients of the same population. For example two different ads may be sent to 20,000 recipients living in the same zip code, split 50/50 among the population – 10,000 recipients receiving one version of the ad and the other 10,000 receiving the other version. This method allows the promoter to guage the effectiveness of the ad by looking at the results each version of the ad garnered. The promoter will be able to enter these parameters in the promotion-targeting page **607** and view the results in the promotion statistics page **614**.

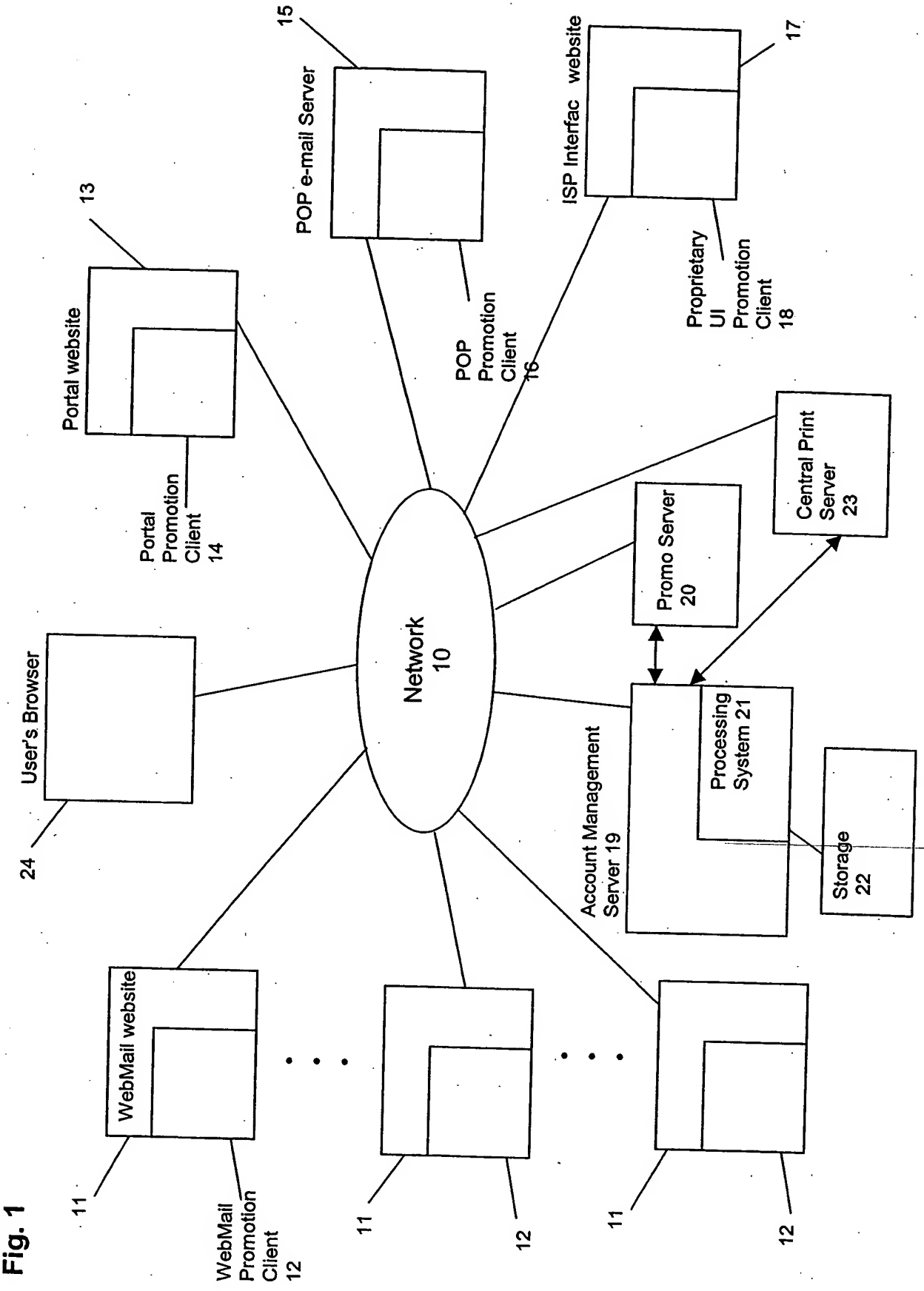
From the main menu **621**, the promoter may display current running promotions **615** and make modifications to them **616**.

From the main menu, **621**, the promoter may search for promotion designers **617**, create a contract with the designer **618**, give privileges to the designer to access certain portions of their accounts in the site to create promotions **619**, and pay the designer **620**.

DETAILED DESCRIPTION OF THE SECOND PREFERRED EMBODIMENT

The second preferred embodiment of the invention is similar to the first preferred embodiment, except that in FIG 1, the Promotions (Promo) Server **20**, Account Management Server **19** and Storage **22**, are hosted and managed at the web-based email (WebMail) provider's web-site **11** location and managed by the web-based email provider.

Fig. 1


Network
10
Portal website
13
Portal
Promotion
Client
14
POP e-mail Server
15
POP
Promotion
Client
16
ISP Interfac website
17
Proprietary
UI
Promotion
Client
18
Central Print
Server
23
Promo Server
20
User's Browser
24
Account Management
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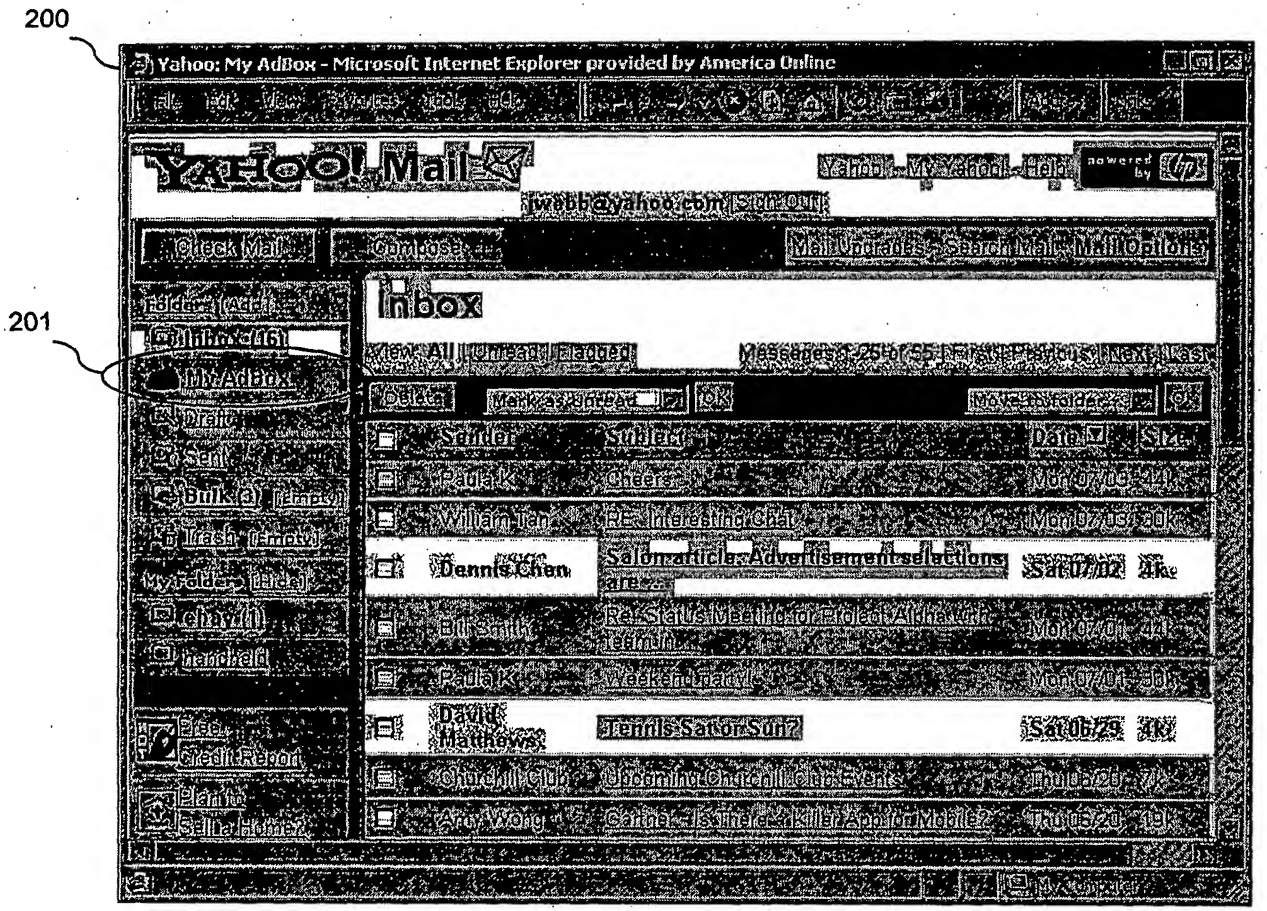
Storage
22
WebMail website
11
WebMail
Promotion
Client
12
11
12
11
12

Fig. 2



BEST AVAILABLE COPY

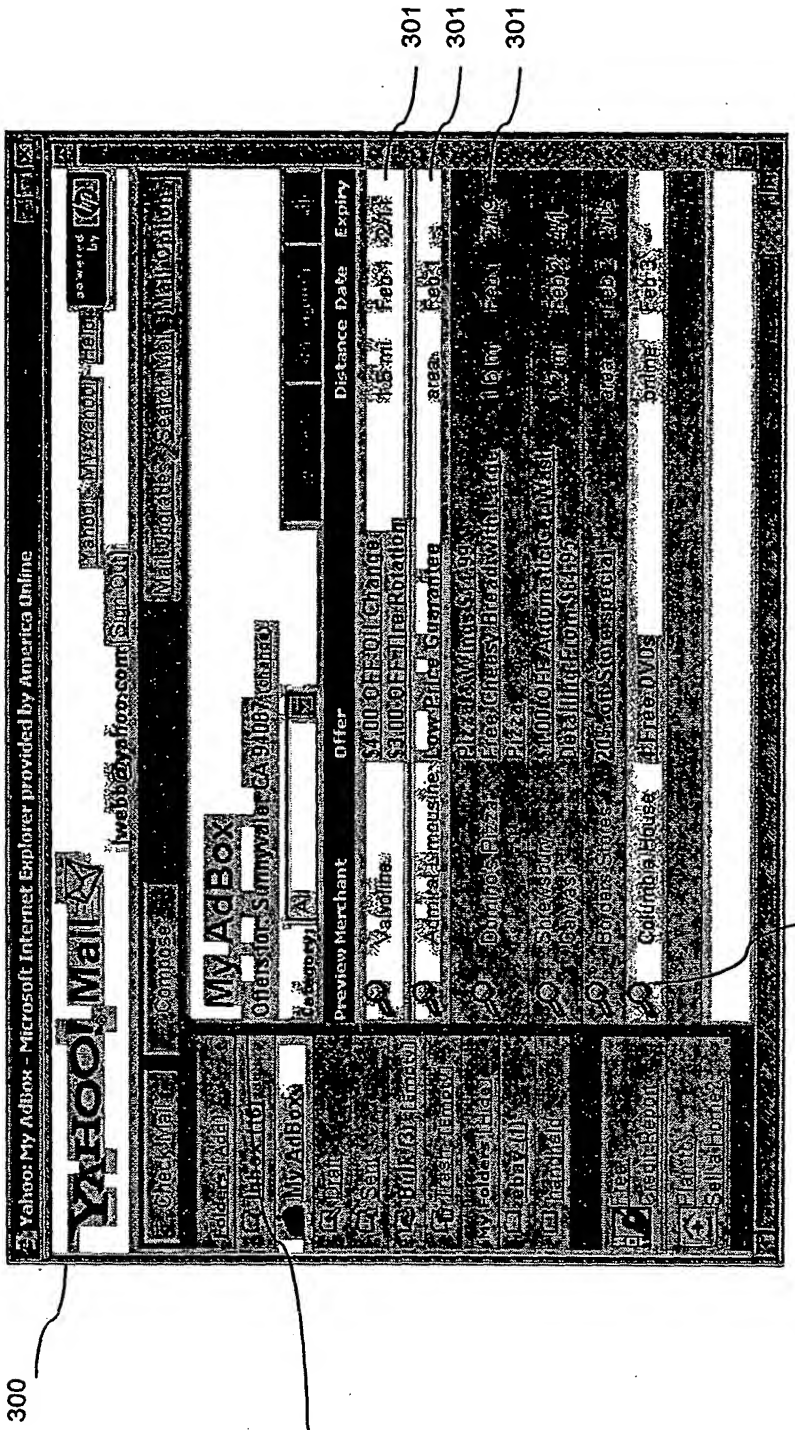


Fig. 3a

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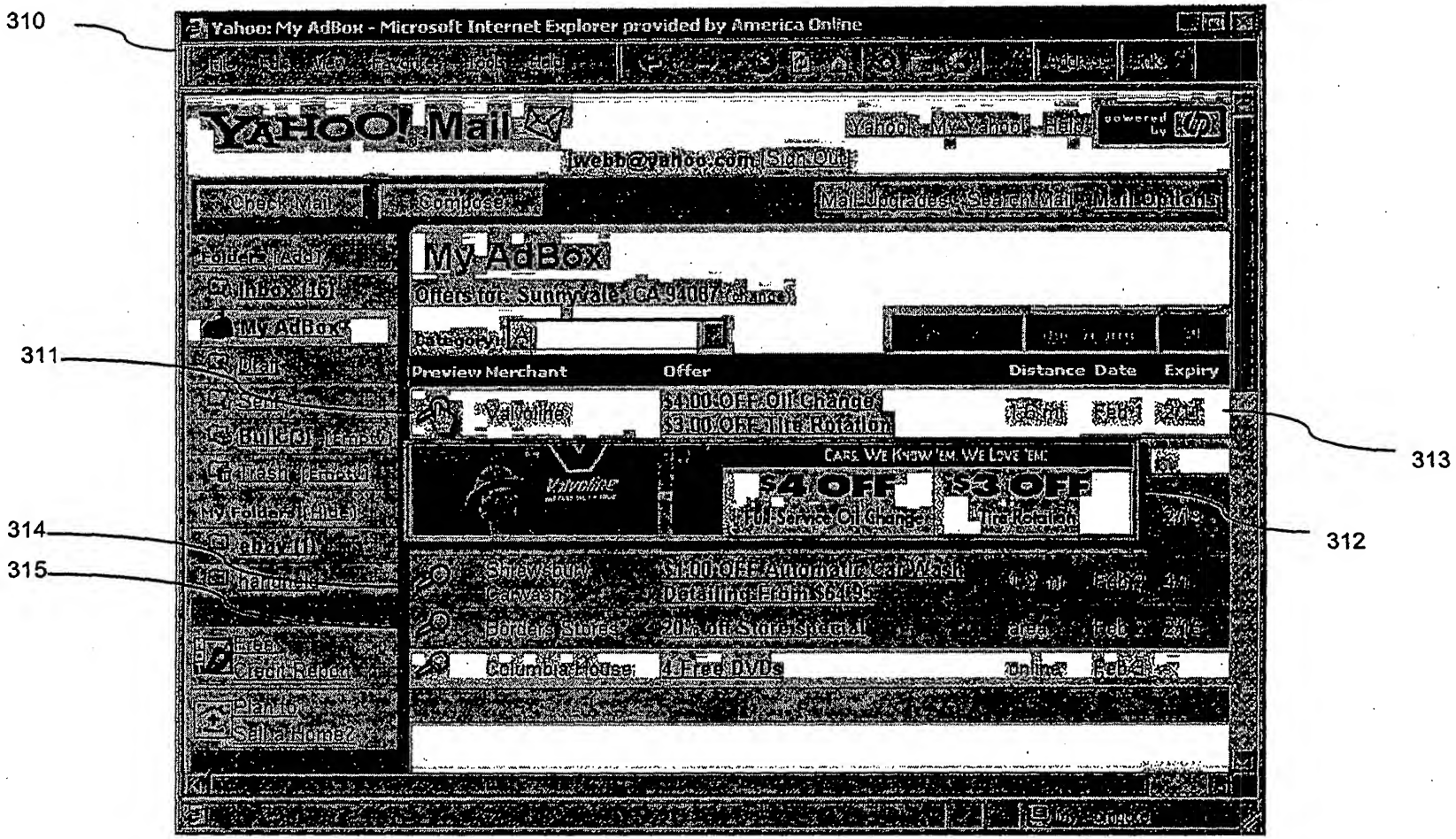
Fig. 3b



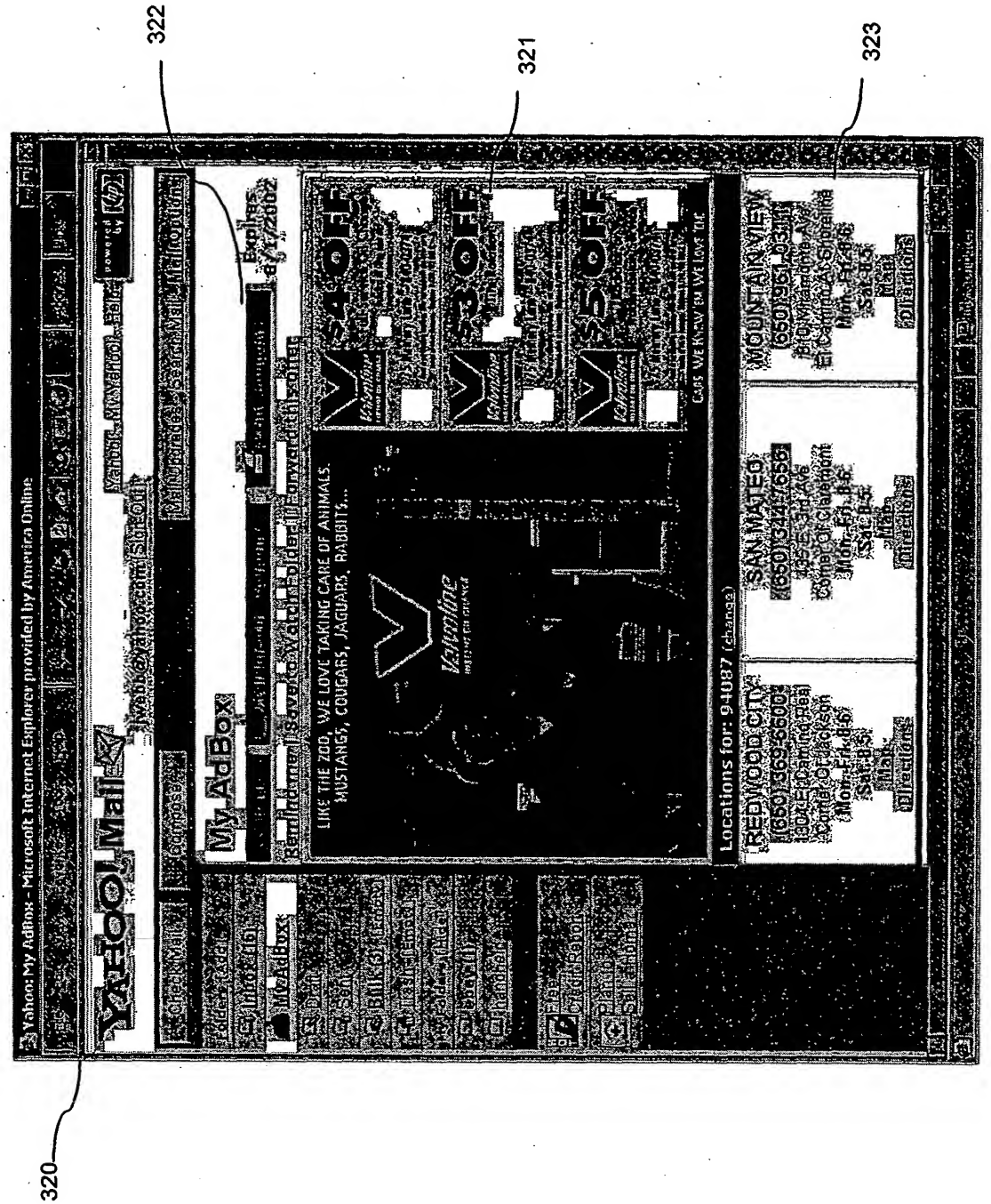


Fig. 3c

BEST AVAILABLE COPY

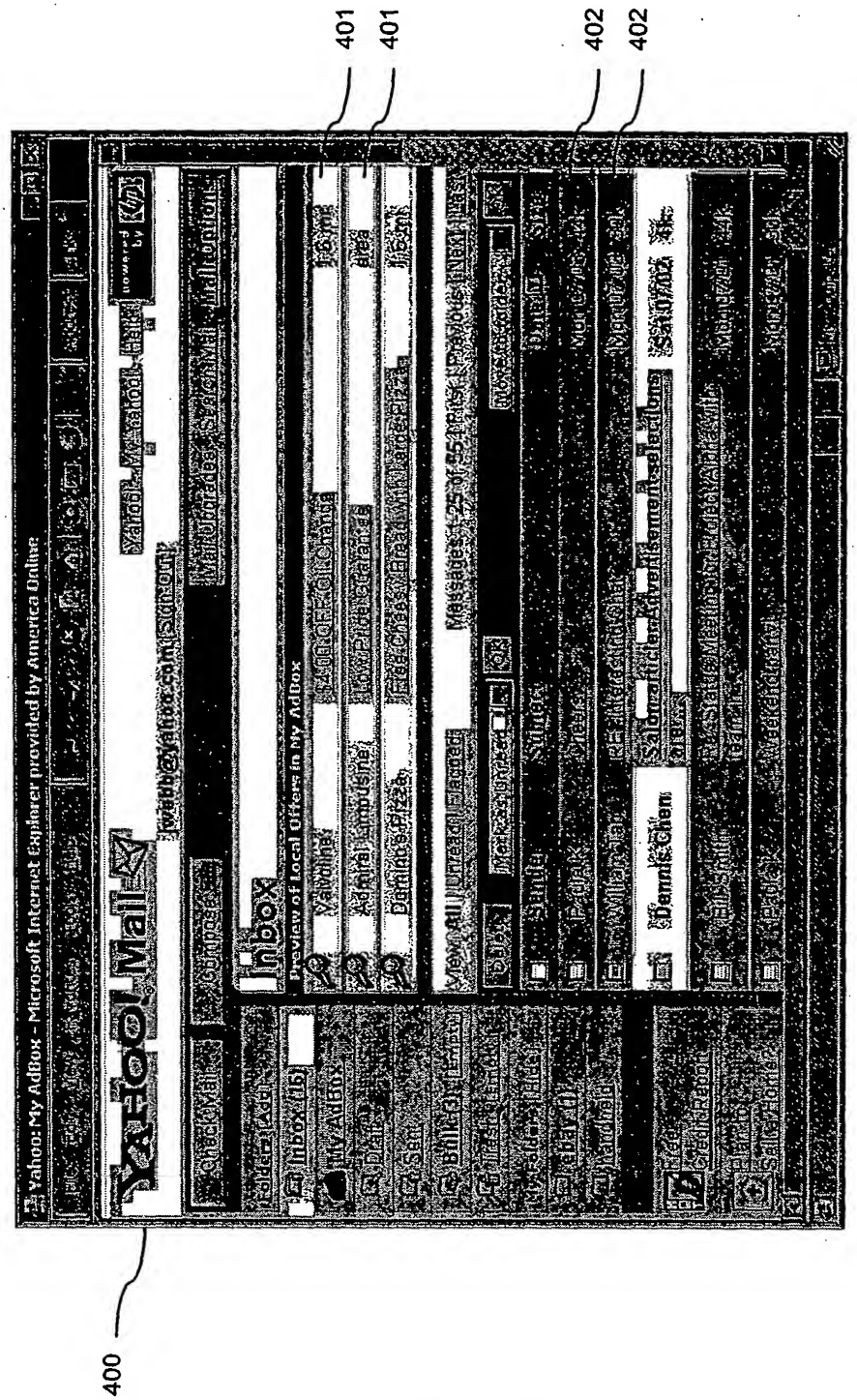


Fig. 4

BEST AVAILABLE COPY

Fig. 5

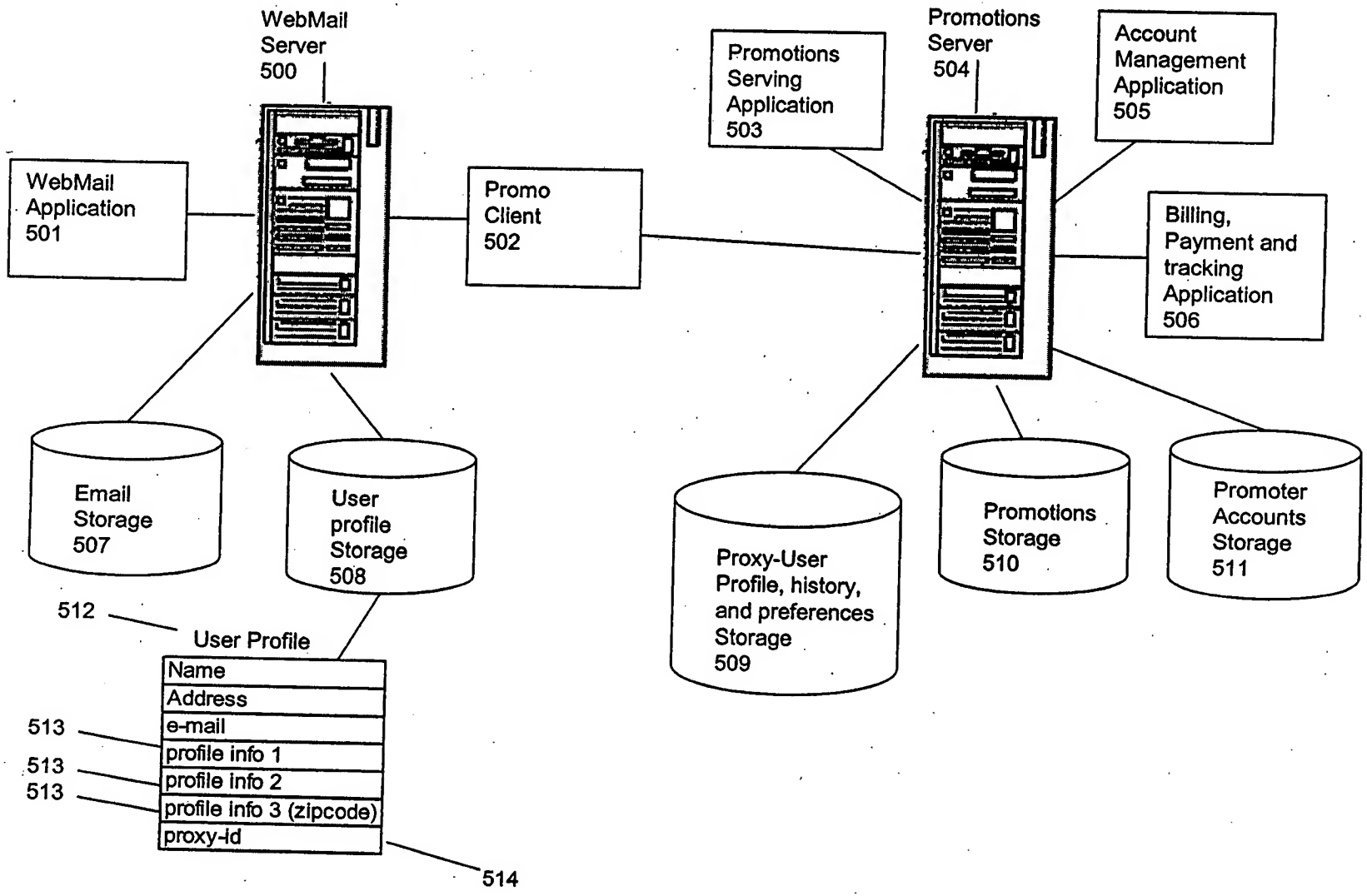

WebMail Server 500
WebMail Application 501
Promo Client 502
Promotions Serving Application 503
Promotions Server 504
Account Management Application 505
Billing, Payment and tracking Application 506
Email Storage 507
User profile Storage 508
Proxy-User Profile, history, and preferences Storage 509
Promotions Storage 510
Promoter Accounts Storage 511
512
User Profile
Name
Address
e-mail
profile info 1
profile info 2
profile info 3 (zipcode)
proxy-id
513
513
513
514

Fig. 6

PROMOTER SOFTWARE ROUTINE

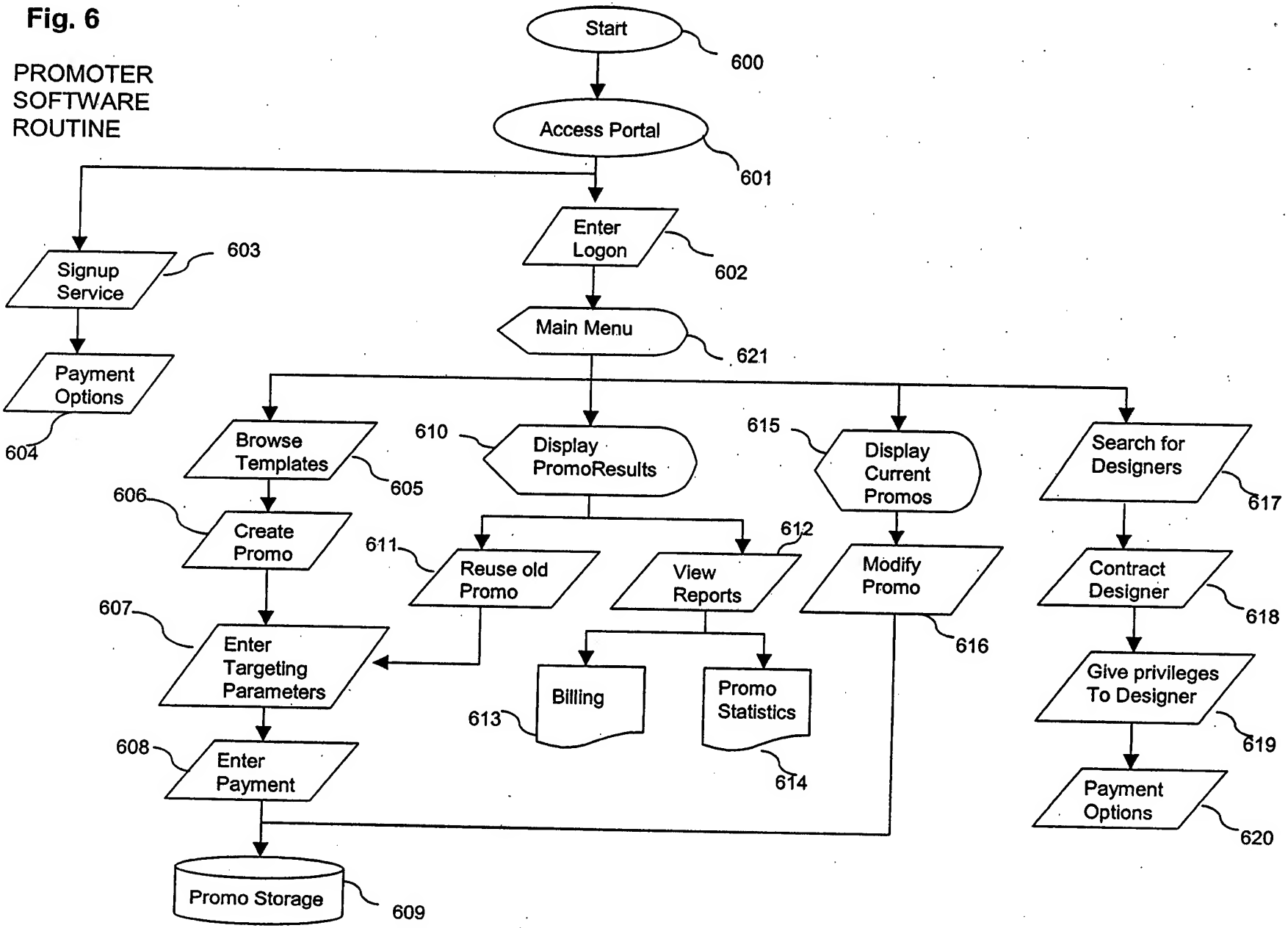


Fig. 7

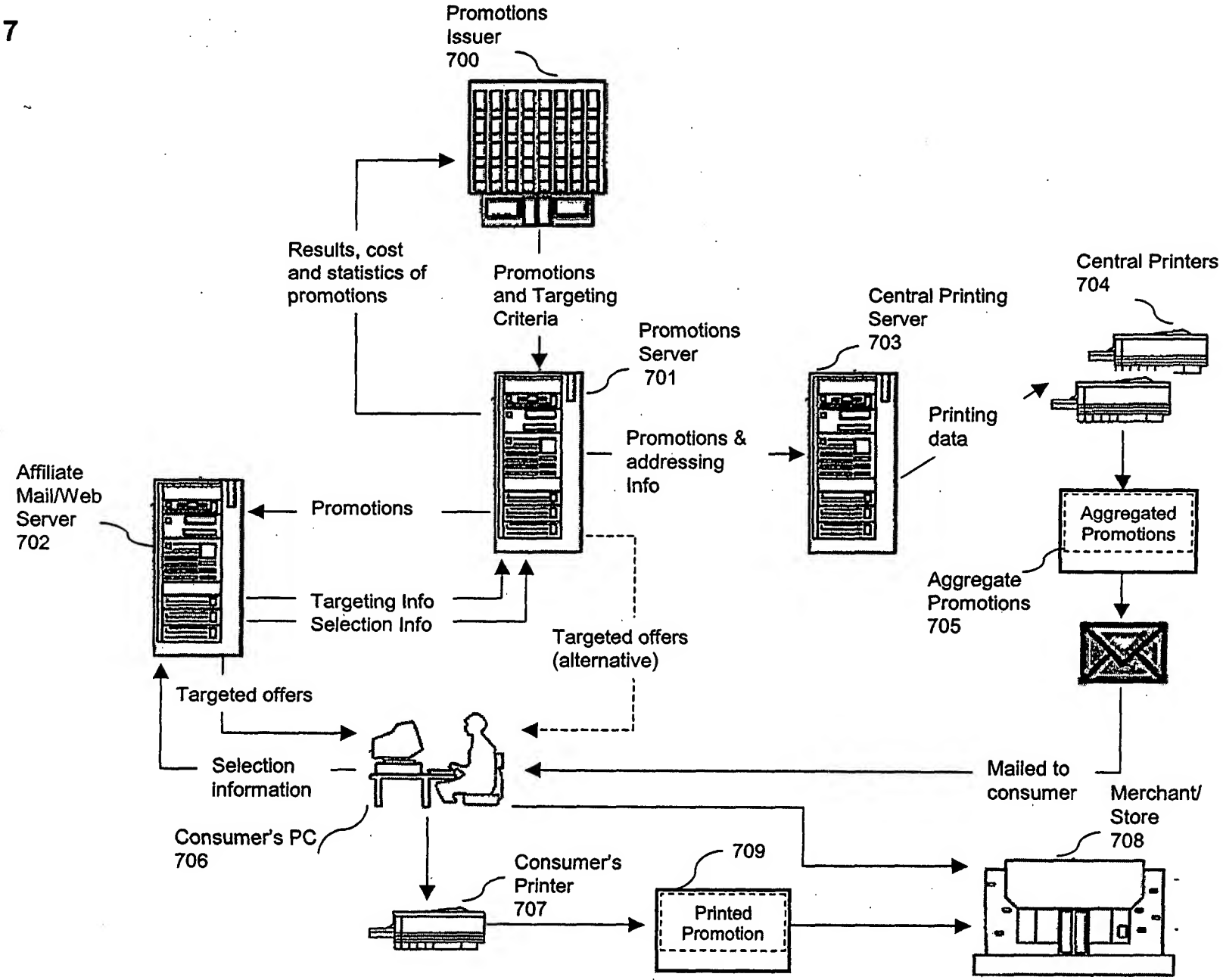

Promotions Issuer 700
Results, cost and statistics of promotions
Promotions and Targeting Criteria
Promotions Server 701
Central Printing Server 703
Central Printers 704
Printing data
Promotions & addressing Info
Affiliate Mail/Web Server 702
Promotions
Aggregated Promotions
Aggregate Promotions 705
Targeting Info
Selection Info
Targeted offers (alternative)
Targeted offers
Selection information
Mailed to consumer
Merchant/ Store 708
Consumer's PC 706
Consumer's Printer 707
709
Printed Promotion

Fig. 8

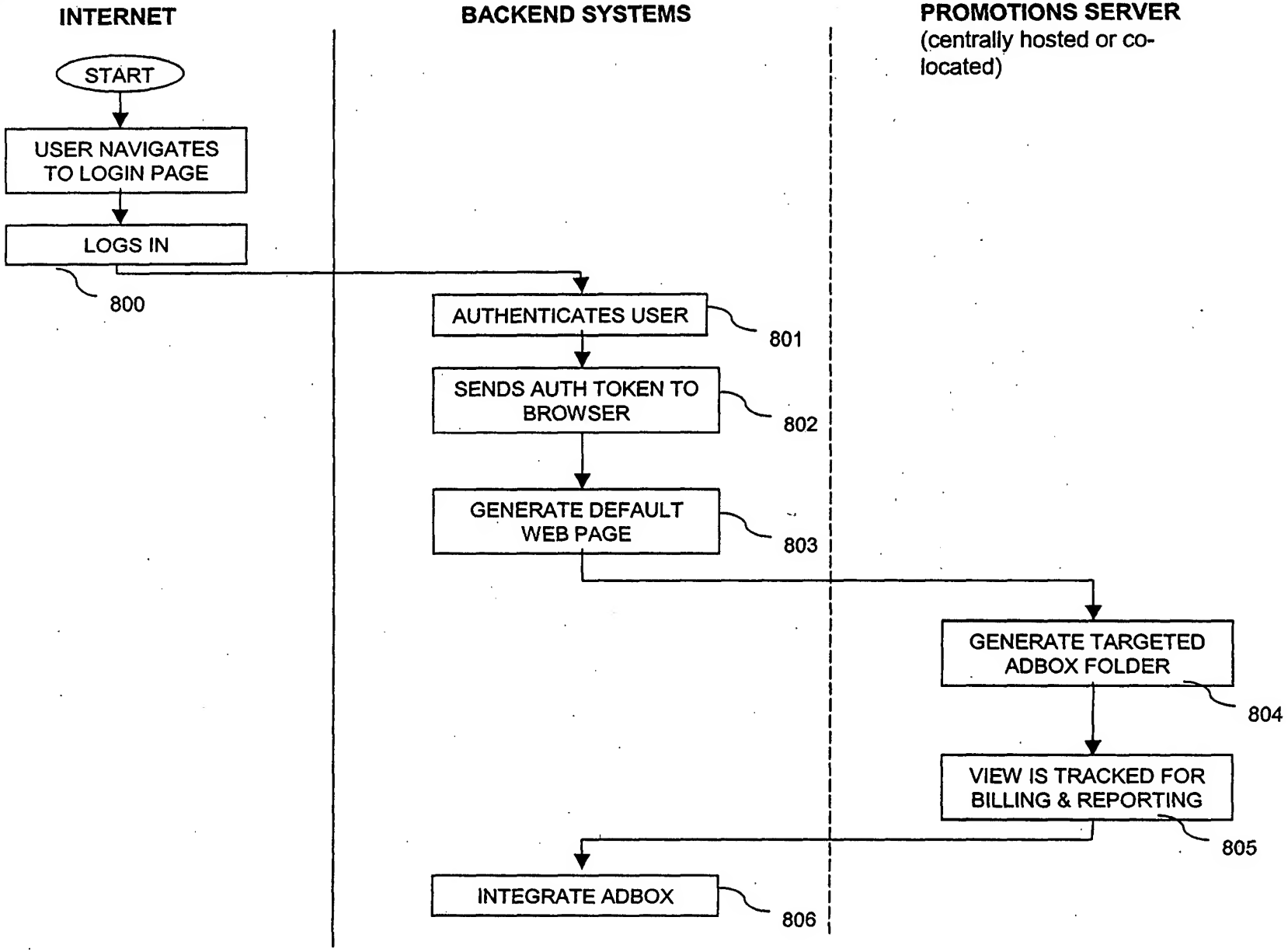

INTERNET
BACKEND SYSTEMS
PROMOTIONS SERVER
(centrally hosted or co-located)
START
USER NAVIGATES TO LOGIN PAGE
LOGS IN
800
AUTHENTICATES USER
801
SENDS AUTH TOKEN TO BROWSER
802
GENERATE DEFAULT WEB PAGE
803
GENERATE TARGETED ADBOX FOLDER
804
VIEW IS TRACKED FOR BILLING & REPORTING
805
INTEGRATE ADBOX
806

Fig. 9

CONSUMER SOFTWARE ROUTINE

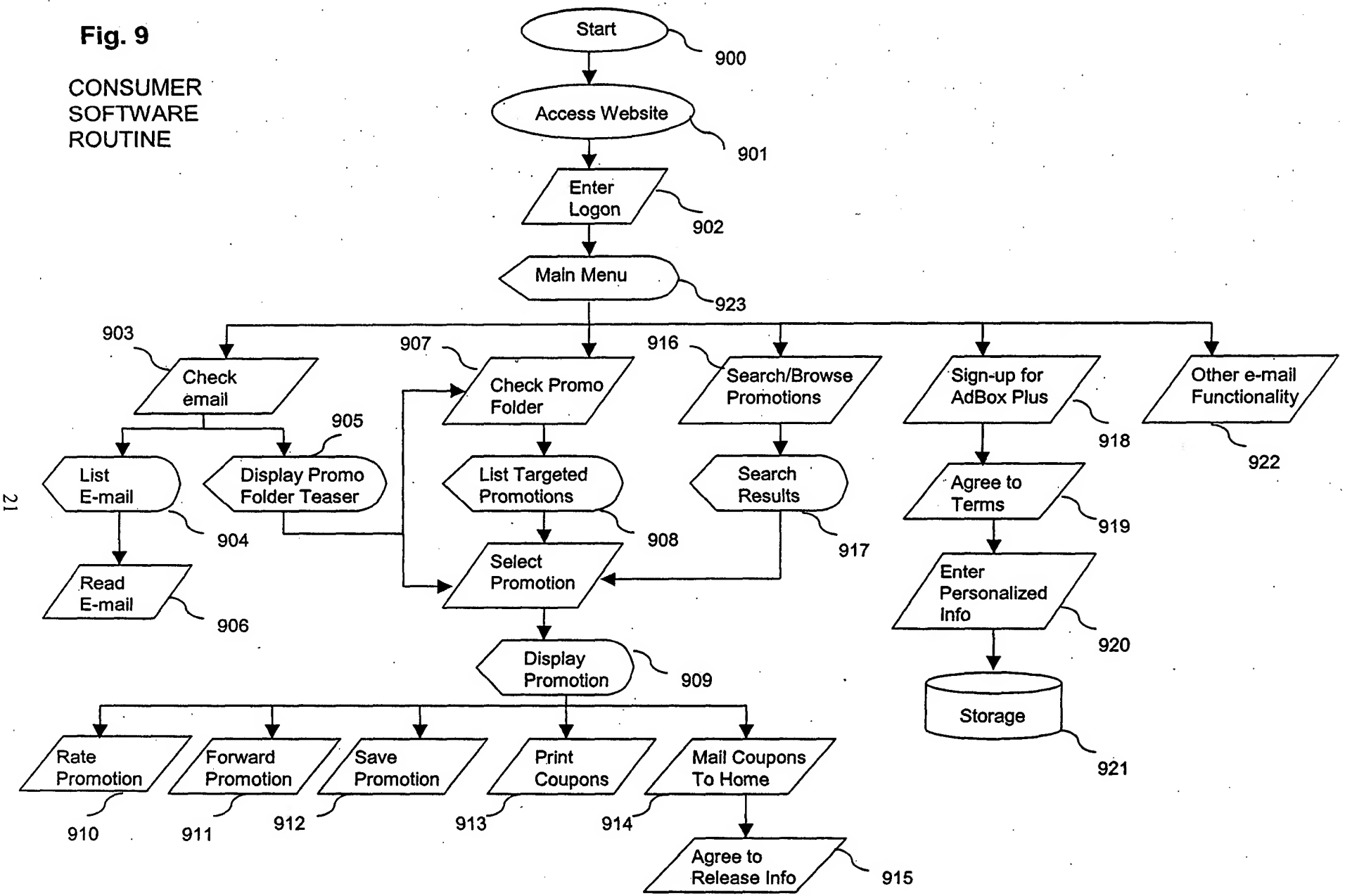


Fig. 10a

PRIOR ART
Hotmail Interface
With MSN Featured Offers

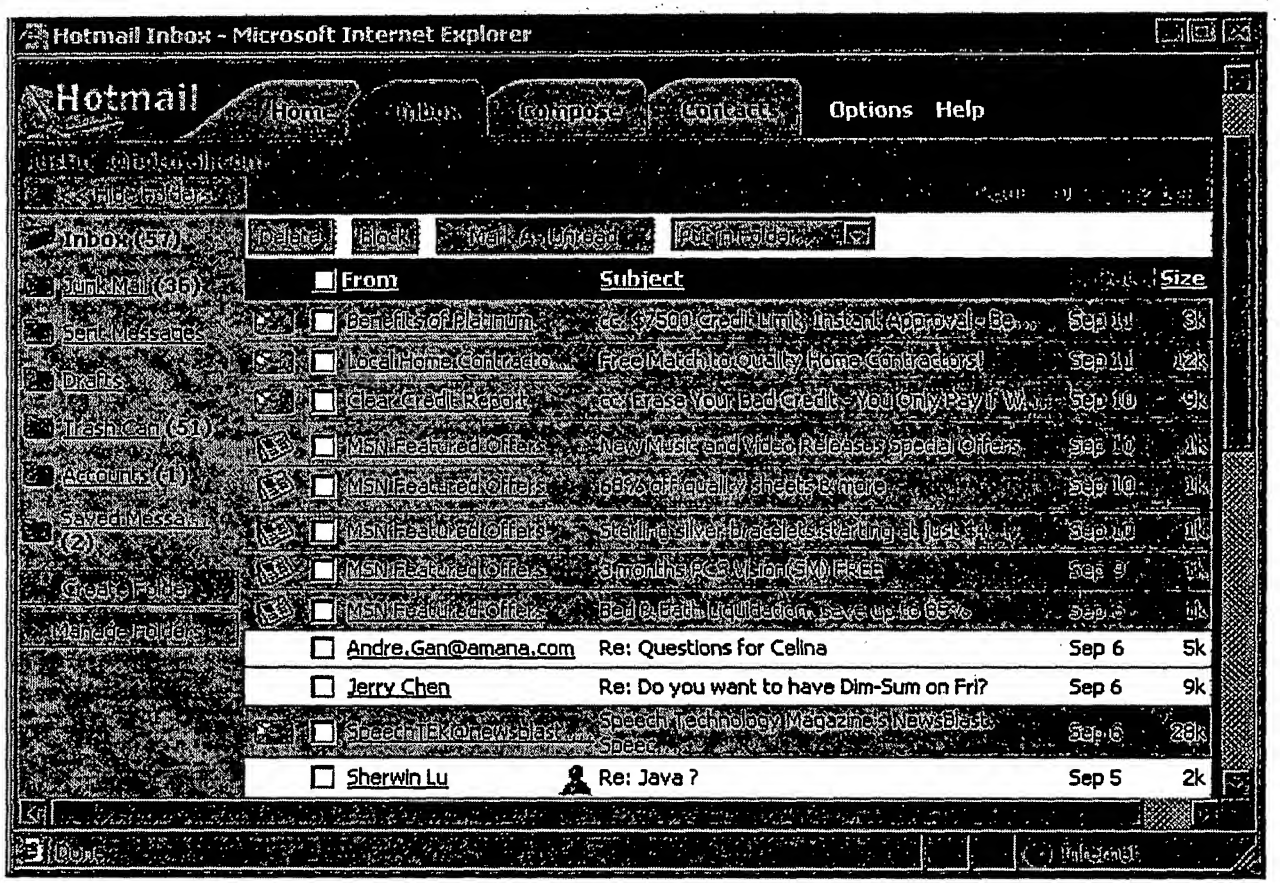
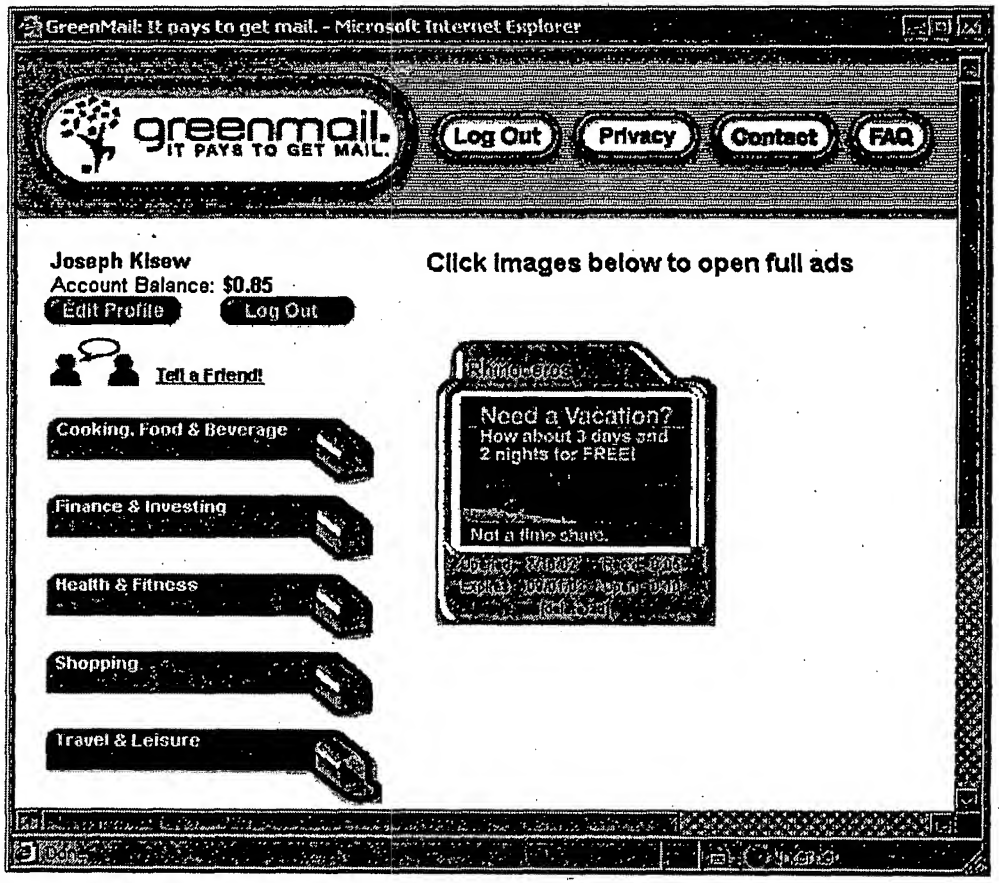


Fig. 10b.

PRIOR ART
Greenmail.com
Static graphical listing



Systems and methods for online direct marketing and advertising on e-mail systems over a network.

BACKGROUND.

The present invention relates to the processing of E-mail messages over a telecommunications network. More specifically, the present invention relates to the enhancement of e-mail technology to provide a preview mechanism whereby senders of e-mail are able to provide special customized graphical messages in addition to the e-mail content.

E-mail is regarded as the Internet's first and one of the biggest Killer Apps. In 2000, International Data Corp., estimates that the average daily volume of e-mail around the world was some 10 billion, and will explode to 35 billion by 2005. Companies online and offline are finding that e-mails are a very effective and low-cost method to keep in touch with their customers. Unfortunately, unsolicited commercial e-mail (spam or UCE) are a big problem. Up to 40% of e-mail traffic on the internet could be classified as spam. The pervasiveness of spam has diluted the power and effectiveness of e-mail as a means to attract, communicate with and keep customers.

The problem of spam is due to the fact that sending an e-mail is very close to being free. Any unscrupulous merchant wanting to obtain as many customers through e-mail as possible has no barrier to e-mailing to as many e-mail addresses as he can get his hands on. In an article by SpamCon Founder Tom Geller, the average cost to send a message to a recipient through postal mail is 75cents, whereas the cost to send an unsolicited e-mail is about a hundredth of a cent. The article further points out when postal mail is concerned, the sender bears 88% of the cost, whereas when it comes to spam, the receiver bears 99.99% of the cost.

Recipients of legitimate and opt-in commercial e-mail often find it difficult to sort through their e-mail and differentiate commercial e-mail that interests them and e-mail that they consider junk. The subject line often does not offer enough description of the content to make the recipient want to open it. Existing e-mail implementations lack the flexibility of creativeness in the "envelope" of the message to entice recipients to open or read it. For example, envelopes of direct postal mail often contain colorful fonts and pictures to attract the user's curiousity, catalogs also have attractive covers and big words to give the recipients a good idea of the content of the catalog. For example, an e-mail with a subject line touting a sale on Sears' Apostrophe line, may not mean much to recipients unfamiliar with the Apostrophe brand. In Sears' catalog however, examples of the Apostrophe line's products may be prominently displayed on the cover of the catalog, prompting recipients attracted to the products displayed to open and browse through the catalog.

There have been a few examples of technology enhancements helping promotions stand out in the inbox of users of e-mail providers. The enhancement might be in the form of a unique icon identifying the promotion as legitimate. **Fig 8a**. shows an example of MSN's MSN Featured Offers promotions sent to users of Hotmail by partners of MSN having a different icon **803**, than ordinary e-mail **802. Fig 8b.** shows an example of Greenmail.com's offers where users are shown a small graphic **812** enticing the user to open the message. Nevertheless both these approaches are not e-mail based. Promoters have to partner with the e-mail provider to send promotions to the e-mail provider's user base using selected targeted information based on the profile of users. Also Greenmail's static graphical approach clutters up the listing of promotions in the user's promotional folder.

SUMMARY OF THE INVENTION

The present invention describes a method and system for enhancing e-mail technology with a preview system consisting of an e-mail preview mechanism with preview content served by a preview server. The preview mechanism will be resident on the recipient web-based e-mail server or the recipient's email client. The web-based e-mail server may run, for example, an open-source web-based e-mail Message User Agent (MUA), such as Horde's IMP and Oreilly's SquirrelMail running on a Web Server such as Apache and an SMTP compliant e-mail Message Transfer Agent (MTA) and Delivery Agent (MDA) such as Qmail. The recipient's email client may be Microsoft Outlook. The preview server may be, for example, a merchant's Windows NT server.

One goal is to provide an enhancement to e-mail technology to allow commercial e-mail to have a visual and interactive "envelope", instead of just text indicating the sender and subject line, in order to entice recipients to open the e-mail message. It is a further goal to give users a user friendly method to browse through commercial e-mail by being able to view a customized preview of the content of the e-mail message without having to open the message itself. A suggested goal of the invention is to create a new class of e-mail whereby commercial e-mail senders pay to have the preview served to the recipients, creating accountability in e-mail whereby the sender bears the cost of the e-mail. The e-mail service provider, such as Yahoo! Mail and Hotmail gets a cut of the preview serving revenue.

It is a further object of the present invention to provide a method to view a preview associated with an a-mail directly from the an aggregate listing of email without opening the message itself, allowing the e-mail sender to put creative mechanisms such as graphics, animation or multi-media in the preview to entice the user to open the promotion itself. The preview routine further helps the user by giving the user a better idea of the content of the promotion than by guessing from the subject line of the promotion.

In a preferred embodiment, an enhanced e-mail authoring software or Message User Agent (MUA) allows commercial e-mail senders to create e-mail content along with a specialized graphical or multi-media "preview". The preview is sent to the preview server and instructions to retrieve the preview are included in the e-mail message, either in the e-mail header or as MIME attachment in the e-mail body.

In a preferred embodiment, when a user requests to view a listing of his e-mail messages, the web-based e-mail software (MUA) parses the e-mail contents or headers for valid preview instructions and generates browser readable instructions to allow the user to view the preview of individual e-mail messages without leaving the listing of the messages. The software also adds a preview trigger in a form of an icon. When the user moves his mouse over the preview trigger, the preview will be loaded from the preview server.

In a preferred embodiment, the preview will consist of an HTML layer overlay containing one of a plurality of media types such as Gif or Jpeg graphic, Macromedia Flash, Video, Java Applet or an HTML form. The preview triggering routine may be written in a browser scripting language such as JavaScript, VBScript, a proprietary plugin such as Macromedia Flash or other forms obvious to those skilled in the art.

In a preferred embodiment, the previews content will be loaded only after the visible content of the listings are loaded to enable the page to look as if it has completed loading earlier. The previews of the promotion, which may contain graphics and other audio or visual elements, will load in the background while the user is viewing the listing. This can be achieved using script code such as JavaScript that is loaded into the user's browser, server code, or a combination of both.

In a preferred embodiment, a delay is introduced when a user initially mouses over a triggering icon before showing the preview to prevent accidental triggering. A delay is also introduced after the user moves his mouse away from the triggering icon or preview before hiding the preview to

allow the user some freedom in the movement of the mouse.

In a preferred embodiment, the preview showing routine allows multiple ways to show the preview – the preview may be made to slide down from under the message listing or progressively appear on the browser window.

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

FIG 1a. is a block diagram illustrating the relationship between a large network and one embodiment of the system and method for online direct marketing and advertising on e-mail systems over a network of the present invention.

FIG 1b. is a diagram explaining the processes performed in a preferred embodiments.

FIG 2a. illustrates an example of a list of ordinary and preview-enhanced e-mail within the interface of a web-based email provider in one embodiment of the present invention..

FIG 2b. illustrates an example of a preview triggered by the hovering of the mouse on top of an icon that serves as a triggering routine in one embodiment of the present invention.

FIG 2c. illustrates an example of content of a preview-enhanced e-mail in one embodiment of the present invention.

FIG 3a. shows a specific embodiment of the preview-enhanced e-mail format in which the preview instructions are included in the header of the e-mail.

FIG 3b. shows a specific embodiment of the preview-enhanced e-mail format in which the preview instructions are included as an attachment in the body of the e-mail.

FIG 4. illustrates the process by which a preview-enhanced e-mail is created, sent and previewed by the user.

FIG 5. shows a specific embodiment of the present invention of generating a listing of preview-able emails.

FIG 6. shows a specific embodiment of the present invention of retrieving a preview from the preview server and showing it to the user.

FIGS 7A, 7B, 7C and 7D are diagrams showing the basic structure of some of the databases kept by the preview server.

FIGS 8A and 8B. shows examples of Prior Art implementations of non-email promotions delivered to users within a web-based email provider's system.

FIG 9. shows the user interface of AOL's Internet client and its proprietary e-mail reader.

DESCRIPTION OF THE SPECIFIC EMBODIMENTS

The present invention describes a method and system for enhancing e-mail technology with a preview system consisting of an e-mail preview mechanism with preview content served by a preview server. The preview mechanism will be resident on the recipient web-based e-mail server or the recipient's email client. The web-based e-mail server may run, for example, an open-source web-based e-mail Message User Agent (MUA), such as Horde's IMP and Oreilly's SquirrelMail running on a Web Server such as Apache and an SMTP compliant e-mail Message

Transfer Agent (MTA) and Delivery Agent (MDA) such as Qmail. The preview server may be, for example, a merchant's Windows NT server. In the case of a recipient using a non-web-based e-mail provider, the recipient's email client may be Microsoft Outlook.

FIG 1a. shows a simplified representation of the E-mail preview system of the present invention. The basic architecture of the E-mail preview system works over a common Network **12**. In a preferred embodiment, the Network will be the Internet. The Network **12** comprises at least one Vendor's e-mail system **15, 16, 17**, an E-mail Preview Server **14**, connected to an E-mail Preview Storage **13**, at least one affiliate web-based email (WebMail) server **18, 20**, and the user's browser **24**. In an alternative embodiment, where the technology is catered towards non-web-based e-mail service providers, the architecture may include one or more POP based e-mail servers **25, 26** and ther user's POP e-mail Client. The architecture also supports an architecture where e-mail is received and displayed on custom proprietary e-mail readers **27**, such as the interface provided by AOL (**Fig 9**).

Each web-based email server will include a client preview process **19, 21** that is responsible for the integration and communication between the WebMail server processes **18, 20** and the preview server **14.** In the case of the user using a POP based e-mail service provider a plugin client process **24**, may be integrated into the user's e-mail reader **27.** In cases where the user is accessing his e-mail through a customized ISP interface **27,** the interface will contain a client preview process.

The discussion of the invention will now focus on the web-based email affiliate systems **15,16,17** although it equally applies to the POP-based and proprietary ISP e-mail reader solutions. A person skilled in the art would be able to apply the processes and technologies discussed in the web-based e-mail system scenario to the POP based and Proprietary ISP e-mail reader systems.

FIG 1b. shows the various components of the said invention in a preferred embodiment. The WebMail Server **100,** consists of the affiliate's e-mail server application **101**, or more specifically a receiving Message Transfer Agent (MTA) such as Qmail, the affiliate's web-based email application **102,** or more specifically a Web-based Message User Agent (MUA) such as the open source Horde project's IMP running on a Web (HTTP) server **112** such as Apache, email storage **104** and a preview client application **103.** The preview client application may physically consist of a modification to the affiliate's original Web-based MUA **102.**

The Preview Server **108,** consists of the preview serving application **109,** preview storage **110,** and storage for transactions and accounts information **111.**

The Vendor E-mail system **105** consists of the e-mail sending application **106,** or more specifically a sender MTA and a storage mechanism to store e-mail content **107**, before sending the e-mail to recipients.

The WebMail Server **100,** Vendor E-mail Server **105**, and the Preview Server **106**, are connected by a common Network **12.**

The Network **12,** in a preferred embodiment is the Internet. E-mail sent from the Vendor E-mail server **105**, gets routed to the WebMail Server **100**, using the Simple Mail Transfer Protocol (SMTP) protocol over TCP/IP. The user reads his e-mail on a Web-Based e-mail Application **102**, using a Web Browser **22**, over HTTP. The Preview is retrieved from the Preview Server **108** using HTTP, although a plurality of protocols familiar to the people skilled in the art may be used. These protocols may include, FTP, streaming protocols, TCP and UDP.

E-mail Preview

Fig 2a. shows an example of a Web-based e-mail provider's user interface **201**, that has been preview-enabled. E-mails that contain preview instructions **202,** are marked by a preview icon **203,** signifying to the user that he may place his mouse over the icon **203,** to activate the preview. **Fig 2a.** also shows a plurality of commercial e-mail that do not contain preview instructions **204.** These listings appear as ordinary listing without the preview icon **203.** The listings of the e-mails **202, 203** contain links to the content of the e-mail itself.

Fig 2b. shows an example of a Web-based e-mail provider's user interface **230,** that has a preview activated **233.** The user has placed his mouse cursor over the triggering icon **232,** of a listing of an e-mail **231,** that he is interested in. Upon triggering the preview, the preview content **233,** appears to slide out from under the listing entry **231,** and remain open until either the user moves his mouse away from both the preview content **233,** and the triggering icon **232.** The previewing routine is implemented as a DHTML layer controlled by JavaScript. Other methods may be used, such as Macromedia Flash, Java or a proprietary plugin and any methods familiar to those skilled in the art.

The preview content **233,** may also appear to show on the screen using different visual techniques, such as slide out from under the listing, pop-out, without a sliding effect, and may either rest adjacent to the bottom of the listing **231,** or be animated and move across the page. The preview content **233,** may consist of graphical elements such as Gif and Jpeg images, interactive rich media, which may include audio and video, such as MacroMedia Flash, DHTML, JavaApplets, Windows media clips and any other interactive medium familiar with those skilled in the art. Clicking on the preview content **233,** will either open the content of the e-mail itself **231,** or bring the user to a web-page resident on the internet. If the Preview content **233,** consist of interactive elements, such as a HTML form or Macromedia Flash, the user may be able to dynamically interact with a web application resident elsewhere on the Internet through the activated preview window.

The total payload of all the previews in the e-mail listing **230** may be quite huge, thus slowing down the overall loading of the page. This effect is mitigated by ensuring that the initial loading of the page does not include the loading of the "heavy" objects in the preview content, such as graphics. One method to achieve this is to initially put in lightweight content or images in place of the heavyweight graphical preview content **233,** during initial loading of the page (in the HTML code), then triggering the loading of the heavyweight graphical preview **233,** by a JavaScript code after the page listing the e-mails has finished loading to the user's browser. The JavaScript code will load the heavyweight graphical previews from the preview server, and replace the lightweight content or images with the heavyweight content before the previews **233** are shown. Another method to achieve a "fast load" of the page **230** is to activate the loading of the heavyweight content only after the user has triggered the preview loading routine **232.** This method may result in the user being subjected to a delay in the loading of the preview. In this embodiment of the invention, both methods are used.

A preferred embodiment of the invention further includes the ability to load preview content using a predictive loading algorithm to determine the order in which preview content are loaded in the background. The algorithm may take into account the priority given to the promotion and the size of the preview content. In addition, the algorithm may load previews based on the real-time triggering pattern of the previews by the user, which may include the proximity of non-yet-loaded previews from previously viewed and loaded previews. An example would be when the user triggers a preview **232,** any not-yet-loaded previews in close proximity to the triggered preview-able e-mail **231** would be loaded in the background.

Another suggested enhancement to this feature is to take advantage of the Keep-Alive feature of the HTTP protocol (persistent HTTP) wherein a series of requests for content can me made on a single TCP/HTTP connection to the promotions server allowing the content to be loaded faster. Other methods to achieve dynamic loading may include using technologies such as Flash and Java or other routine familiar to those skilled in the art wherein, the preview content may be

streamed to the browser giving the user an impression that the content is loading quickly.

In cases where the network is slow and there is considerable delay loading a preview after a user has activated the preview trigger, a routine is executed to delay the appearance of the preview until the preview has completely loaded. During this delay, an animation can be shown to signal to the user that the content is currently loading.

Also in order to prevent accidental triggering, in a specific embodiment of the invention, delays are introduced in the preview triggering mechanism **232** to ensure that the user has his mouse over the preview trigger a specific period of time before the preview is actually triggered and shown to the user. To allow the user some leeway, a delay is also introduced before the preview is hidden after the user has moved his mouse away from the preview trigger **232** or preview content layer **233**.

Fig 2c. shows an example of an e-mail content **320** on a Web-based e-mail provider's user interface.

E-mail Preview Format

Fig 3a. shows a simplified specific embodiment of the E-mail preview format **300** where the preview instructions **302** are included in the e-mail message's headers **301.** The preview instructions **302,** may be included as a user-defined header, headers beginning with an "X-". An example of a header of a preview-enhanced e-mail using user-defined headers is given below:

```
From: "Jane Sender" <jane@sender.com>
To: jwebb@yahoo.com
Bcc:
Subject: Sale on all leather jackets
Date: Sat, 26 Sep 2002 09:20:17 +0000
Mime-Version: 1.0
Content-Type: text/html
X-Preview: URL=http://previewserver.com/getpreview?preview_code=
  A3123G11&email=jwebb@yahoo.com|TYPE=MacromediaFlash6.0|
  DIMENSION=480x200|PREVIEW_SCRIPT_VERSION=2.05
```

The preview instructions are included in the user-defined header "X-Preview:". In a simplified specific embodiment of the invention, the preview instructions include the URL of the preview content **233**, which is served by the preview server **108**, and the information needed to configure the preview viewing routines to display the preview. In this embodiment, the recipient's e-mail address is sent as an argument to the Preview Server, to track that the recipient has indeed triggered the preview. Other more sophisticated and private tracking methods may be used, such as using SSL to retrieve the preview, encoding or encrypting the email address information, using a hash of the email address or any other method familiar to those skilled in the art.

Fig 3b shows an alternative embodiment of the invention, in which the preview instructions are attached as a MIME attachment to the e-mail message, an example of which is given below:

```
From: "Jane Sender" <jane@sender.com>
To: jwebb@yahoo.com
Subject: Sale on all leather jackets
Date: Sat, 26 Oct 2002 09:20:17 +0000
MIME-Version: 1.0
Content-Type: multipart/mixed;
      boundary="----=_NextPart_000_0036_01C26FEC.EE6C38B0"

This is a multi-part message in MIME format.
```

```
------=_NextPart_000_0036_01C26FEC.EE6C38B0
Content-Type: text/html;
Content-Transfer-Encoding: quoted-printable

<html>
<STRONG>
Hello Joe,
</STRONG><BR>
We are having a blowout leather jacket sale this weekend!<BR><BR>

<A href="http://sendersite.com/sale/">Click here</A> for more
information.<BR><BR>

See you soon!<BR>
Regards,<BR>
Jane Sender
</html>

------=_NextPart_000_0036_01C26FEC.EE6C38B0
Content-Type: application/x-preview;
Content-Transfer-Encoding: quoted-printable

URL: http://previewserver.com/getpreview?preview_code=A3123G11&email=
  jwebb@yahoo.com
TYPE: MacromediaFlash6.0
DIMENSION: 480x200
PREVIEW_SCRIPT_VERSION: 2.05

------=_NextPart_000_0036_01C26FEC.EE6C38B0--
```

The preview instructions are included as an attachment(Multipart/Mixed) of type "application/x-preview". The preview instructions may alternatively be encoded in an XML envelope to allow for easier manipulation by XML enabled parsers.

Another embodiment of the MIME "attachment" alternative would be to attach the preview instructions using a "Multipart/Related" or "Multipart/Alternative" encoding instead.

E-mail Preview Process Overview

Fig. 4 illustrates the process of a preferred embodiment of the invention by which a preview-enabled e-mail is sent to the recipients. In **Fig 4.** the vendor identifies a list of e-mail recipients it wants to send the e-mail to **401.** The vendor creates both the e-mail content, and a graphical preview "envelope" content to go with the e-mail. The preview content is deployed at the preview server **402.** Then preview instructions are attached to each outgoing e-mail **403** using a customized Message User Agent (e-mail composer tool) which includes the preview instructions as part of the e-mail header. The e-mails are then sent to the recipients **404** by the vendor's Message Transfer Agent (outbound e-mail server). If the recipient's e-mail service provider is web-based such as Hotmail **405,** and if the web-based e-mail service provider is capable of processing preview instructions in e-mail **406,** then a list of e-mail with preview triggering mechanisms is generated and displayed **407** to the user, such as in **Fig 2a.** If the web-based e-mail service provider's software is not capable of processing preview instructions in e-mail, then the preview enabled e-mail will still be listed **412,** but as in **Fig 2a.**, the listing will not have any preview mechanisms or icons **203.**

If the recipient's e-mail service provider is not web-based, but POP based **405,** and if the user's e-mail reader is capable of processing preview instructions in e-mail **414,** then a list of e-mail with preview triggering mechanisms is generated and displayed **407** to the user. If the e-mail reader

software is not capable of processing preview instructions in e-mail, then the preview enabled e-mail will still be listed **415**, but the listing will not have any preview mechanisms or icons **203.**

Not shown in **Fig 4.** is a further embodiment of the invention, wherein the recipient receives his e-mail on a proprietary customized e-mail reader, such as AOL (**Fig 9**), a listing with preview mechanisms will be shown if the e-mail reader contains routines capable of processing preview instructions in e-mail.

In a preferred embodiment, the preview instructions contain authentication information to allow the web-based email provider to identify the preview server party, and to allow the preview server to identify the vendor which sent the e-mail.

Generating the E-mail listing

Fig. 5 illustrates the process by which the listing of preview enabled e-mails **201** is generated in the embodiment of the invention. The process begins when a user logs in to the web-based email system **501**, and the user clicks on a link to show a listing of his e-mails **502.**

When the action is taken to generate the listing of e-mails, the preview client process integrated with the web-based e-mail application issues a call **503** to retrieve the e-mail headers and other summary information about the e-mails to generate a listing of the e-mail **201**. This information may include the Sender's name, E-mail Subject, Date, Size of the e-mail, whether there are attachments as well as preview instructions, if present, in the header. The backend system refers to the components in **Fig 1b.** on the WebMail Server **100** and optionally the Preview Server **108.**

The aggregate information of the e-mail listing is then parsed for preview instructions **504.** If the e-mail contains preview instructions, then a validation routine **505**, is performed on the preview instructions. The validation routine in the specific embodiment of the invention, checks to ensure that the preview server serving the preview is a trusted partner of the web-based e-mail provider and that the web-based e-mail system has the capabilities to serve the preview.

If the e-mail contains valid preview instructions **506**, then for the entry of the e-mail in the listing, the necessary preview triggering information **203** is included for the e-mail entry **202** in the listing **201.** If the e-mail does not contain preview instructions or if the preview instructions are not valid, then the listing of the e-mail is generated without the preview triggering information **204.**

The preview triggering information includes appending an icon and the "onMouseOver" and "onMouseOut" JavaScript instructions to trigger the preview when the user moves his mouse over the triggering icon **203.** In the specific embodiment of the invention, a hidden HTML layer is also created for each of the entries to place the preview content in when the user activates the triggering mechanism. This is achieved using the <DIV> </DIV> tags and setting its DISPLAY style variable to "none". Alternative embodiments may use one only one hidden HTML layer that is shared between different previews or any other methods to achieve the overlay effect familiar to those skilled in the art. After all the entries of e-mails are generated, the complete e-mail listing is displayed to the user **509.**

Activating the Preview

Fig. 6 illustrates the process in a preferred embodiment of the invention where the user activates the preview trigger **203** in a preview listing **201.** After the user has logged on and a list of e-mails has been displayed to the user **510**, the user moves his mouse over a triggering icon and activates the preview trigger **601.** This will cause a script process running on the user's browser to initialize the preview **602.** The routine then makes a HTTP call to retrieve the preview content **603**, from the preview server. Upon receiving a call from the browser, the preview server process examines the parameters of the HTTP call from the browser to determine the authenticity of the request, the unique code of the preview as well as the identity of the web-based email provider

which is hosting the e-mail. The content of the preview is then loaded from the preview storage **605.** The preview database is then updated to reflect the transaction **605** and the preview content is sent to the browser through the HTTP connection.

The preview process on the browser then performs final initialization routines **606** – this may include passing parameters to a Macromedia Flash or Java Applet based preview content. Once the preview content has finished initializing, the preview is displayed to the user **607.** In a preferred embodiment of the invention, the preview appears to slide-out from under the e-mail listing. This is done by noting the position of the triggering icon and positioning the preview layer under the icon. The sliding-out effect may be performed by placing a visible layer containing the preview content within an invisible layer, positioning the invisible layer under the e-mail entry upon triggering of the preview and scrolling the visible layer under the invisible layer, to reveal a slide-out effect. This process is done using JavaScript. Other forms of automation may be used including the use of the transparent effects of Macromedia Flash as well as technologies employed by Eyeblaster and PointRoll. In another embodiment of the present invention, the preview may be an animation that appears across the browser window instead of a fixed position under the e-mail listing.

After the user has seen the preview, the user may de-activate the preview by moving the mouse away from the preview trigger **608.** This will trigger a "onMouseOut" routine that will deactivate **609** and hide **610** the preview.

Database Tables

Fig 7a, 7b, 7c and **7d**, illustrate simplified relational database tables stored within the preview server's database storage in a preferred embodiment of the invention. The "PREVIEW_TABLE" table contains information about each preview stored on the Preview Server. Each preview is identified internally with a Preview_ID, and identified externally with a Tracking_Code. Each preview is also tied to a Vendor which is represented by the Vendor_ID.

The "TRANSACTION TABLE" contains a record of each preview served. The field "Recipient_Email_Addr" identifies the recipient of the e-mail who retrieved the Preview and the field "Affiliate_ID" refers to the web-based e-mail provider hosting the e-mail account of the recipient. In a preferred embodiment of the invention, the Affiliate web-based e-mail provider will receive a cut of the revenue from each transaction or preview served. A suggested alternative to using the user's e-mail address in the "Recipient_Email_Addr" field, a unique token may be used, or the e-mail may be encrypted or hashed with the vendor's private key to protect the e-mail recipient's privacy.

The "AFFILIATE_TABLE" contains a record of each Affiliate of the Preview Serving company. The Affiliate may be a web-based e-mail provider like Hotmail and Yahoo! Mail, an ISP such as AOL or any other businesses hosting preview enabled e-mail accounts for users.

The "VENDOR_TABLE" contains a record of each customer of the Preview Serving company who uses the Preview Serving company's Preview Servers to serve e-mail Previews.

Conclusion

In the foregoing specification, the invention has been described with reference to specific exemplary embodiments thereof. Other embodiments will be apparent to those of ordinary skill in the art.

For example, the preview mechanism may be integrated into non-web based e-mail email providers. It may be integrated into a proprietary e-mail interface such as AOL or it may be integrated into Outlook as an ActiveX plugin.

The preview mechanism may also be integrated into e-mail applications designed for mobile devices such as cellular phones and PDAs.

The Vendor that sends out the e-mail may be an e-mail service provider, sending out e-mail on behalf of businesses.

The preview components may also be configured and deployed differently. For example the applications shown in **Fig 1b.** running on the WebMail Server **100**, may be physically deployed on multiple different but connected servers. In another possible embodiment, the preview server may be physically located within and hosted by the webmail server's network. In another possible embodiment, the preview storage may be on a distributed caching network such as Akamai's network.

Fig. 1a

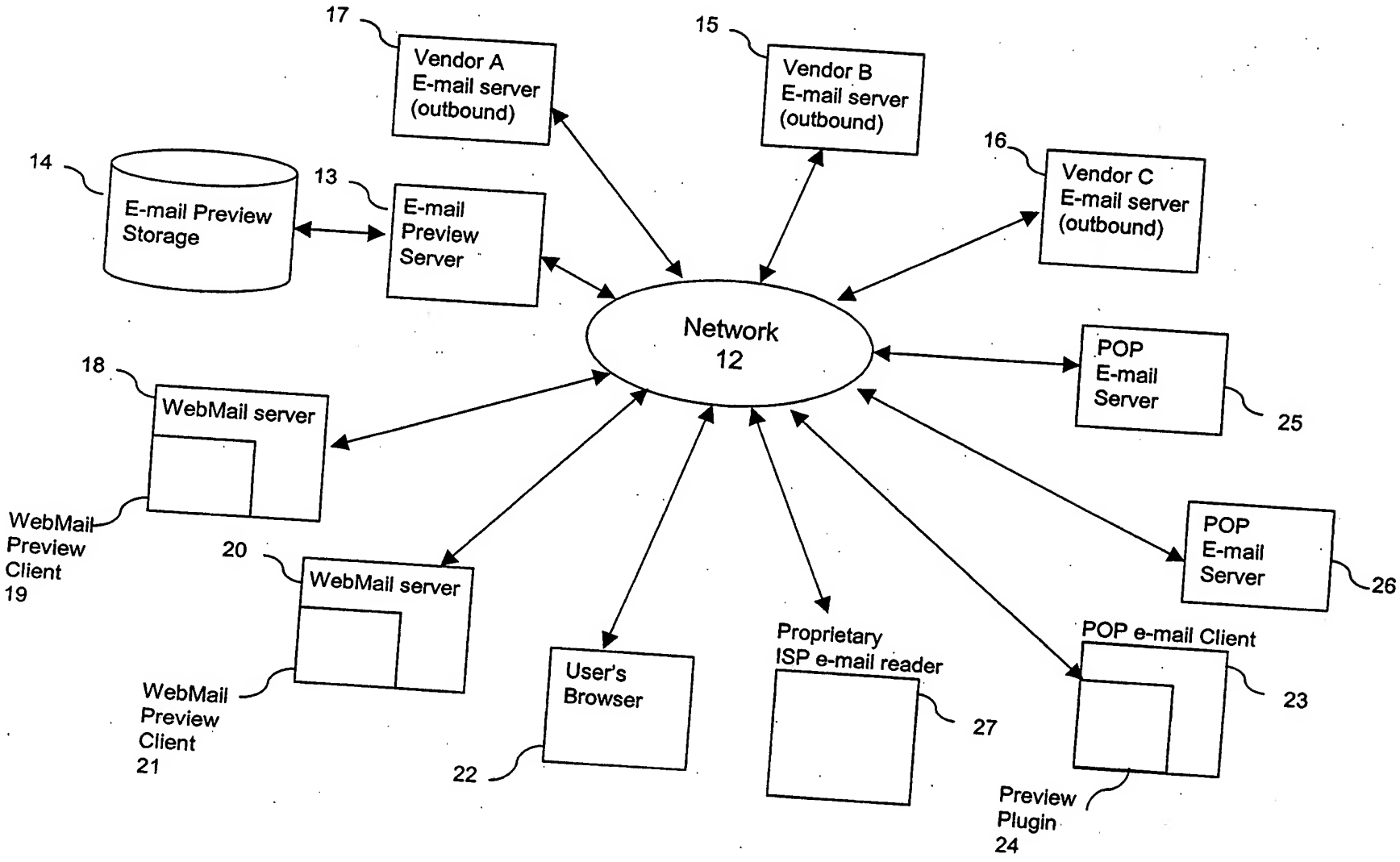
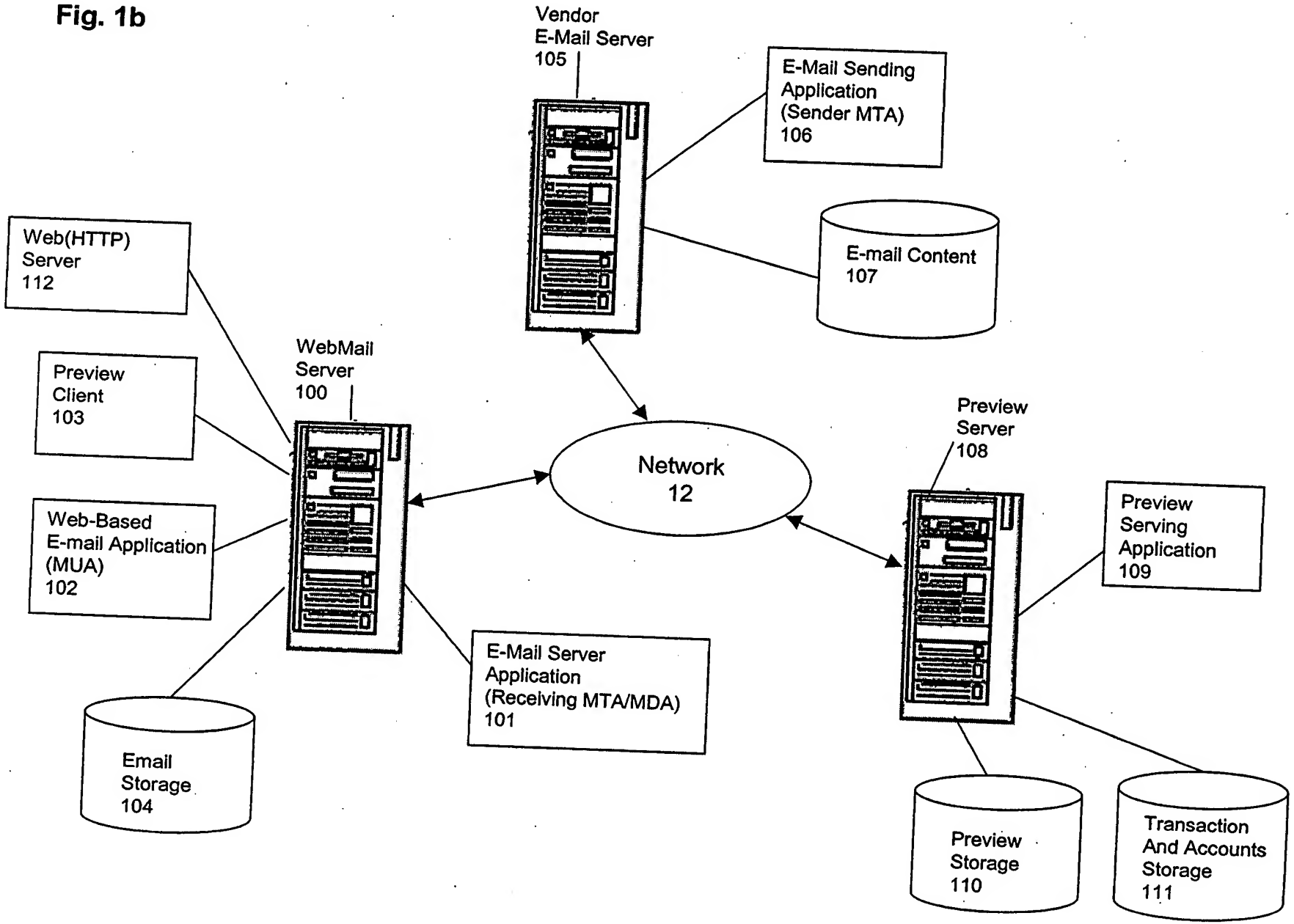

17
Vendor A
E-mail server
(outbound)
15
Vendor B
E-mail server
(outbound)
16
Vendor C
E-mail server
(outbound)
14
E-mail Preview
Storage
13
E-mail
Preview
Server
Network
12
POP
E-mail
Server
25
18
WebMail server
WebMail
Preview
Client
19
20
WebMail server
WebMail
Preview
Client
21
User's
Browser
22
Proprietary
ISP e-mail reader
27
POP
E-mail
Server
26
POP e-mail Client
23
Preview
Plugin
24

Fig. 1b


Vendor
E-Mail Server
105
E-Mail Sending
Application
(Sender MTA)
106
E-mail Content
107
Web(HTTP)
Server
112
WebMail
Server
100
Preview
Client
103
Network
12
Preview
Server
108
Web-Based
E-mail Application
(MUA)
102
Preview
Serving
Application
109
E-Mail Server
Application
(Receiving MTA/MDA)
101
Email
Storage
104
Preview
Storage
110
Transaction
And Accounts
Storage
111

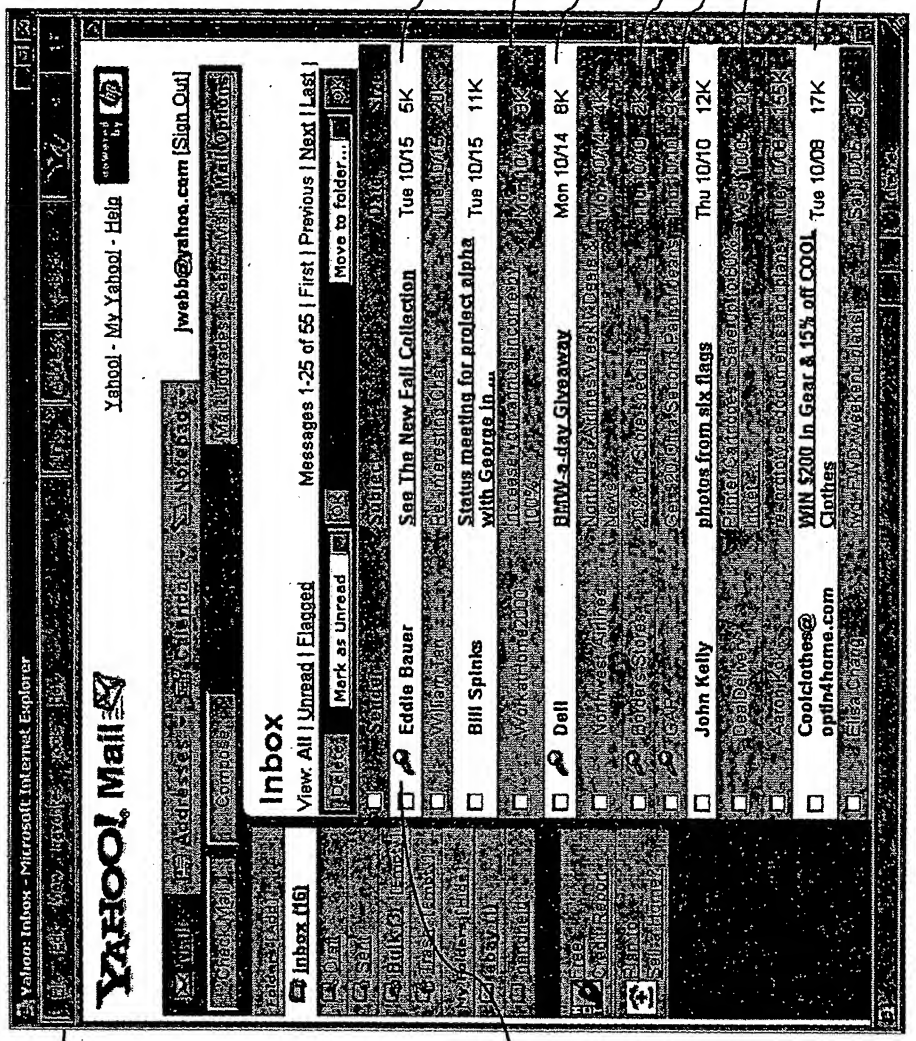


Fig. 2a

BEST AVAILABLE COPY

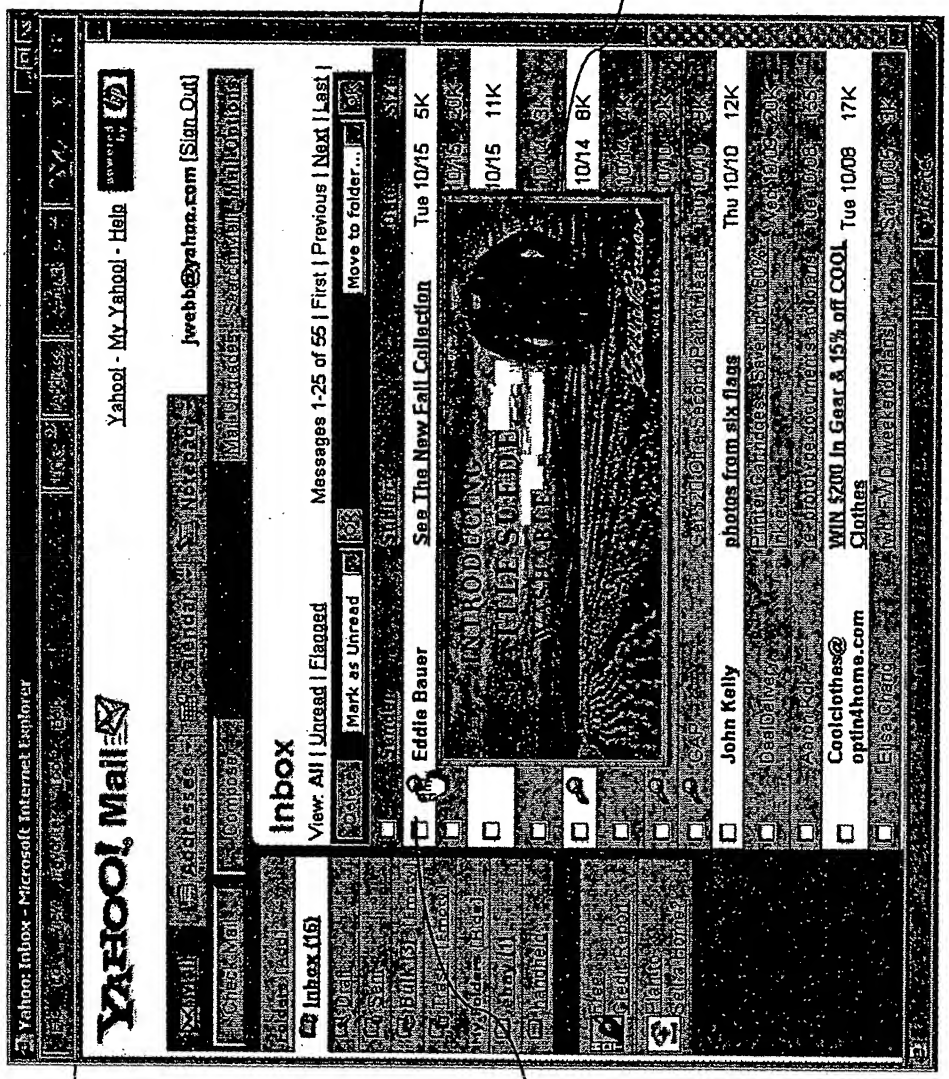


Fig. 2b

BEST AVAILABLE COPY

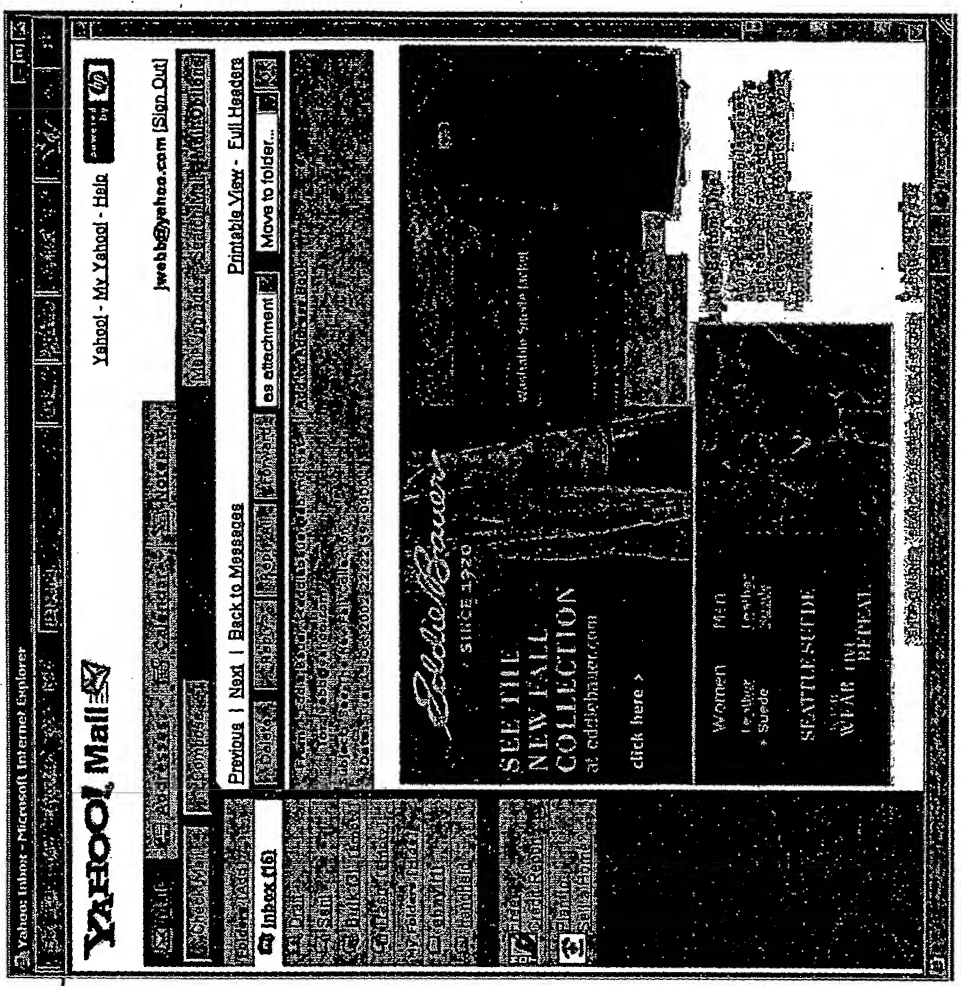
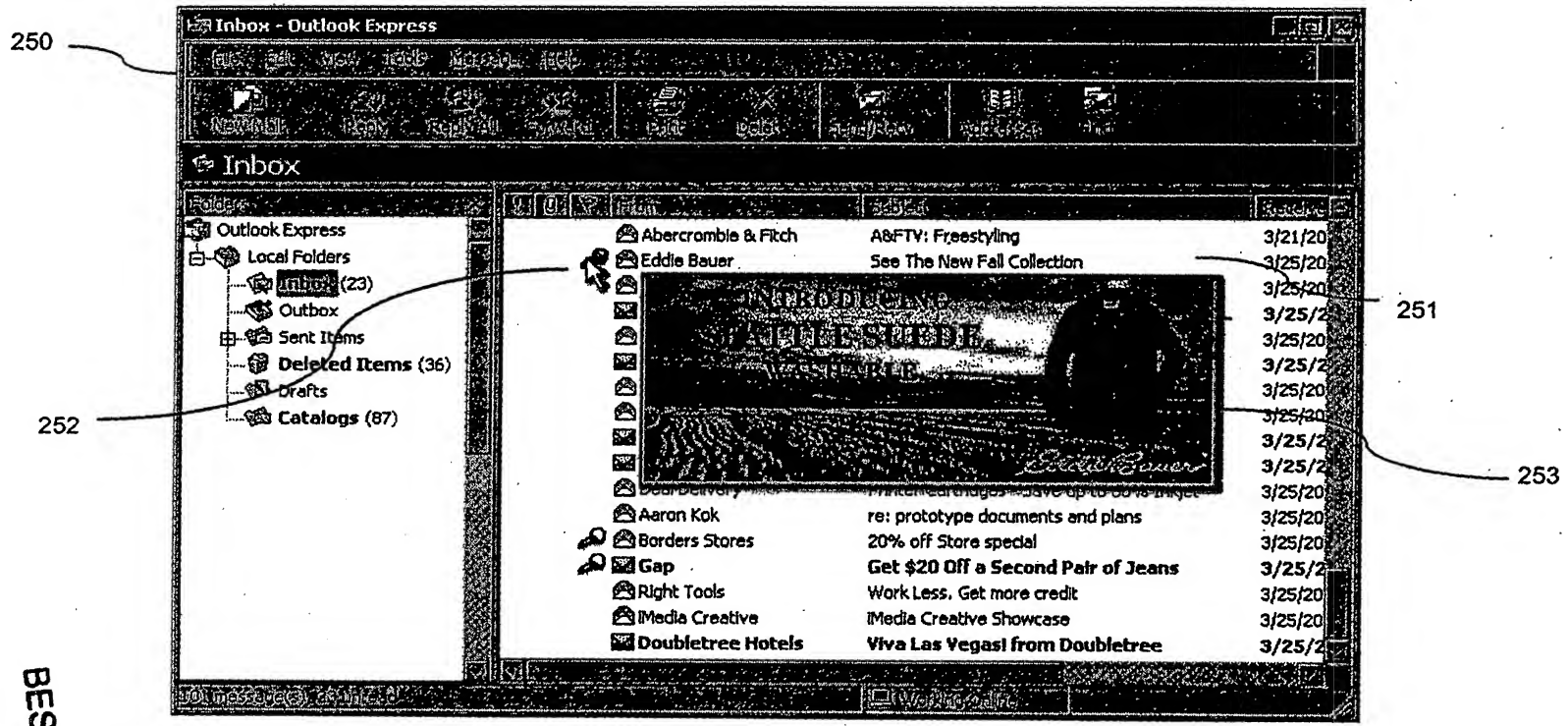


Fig. 2c

Fig. 2d



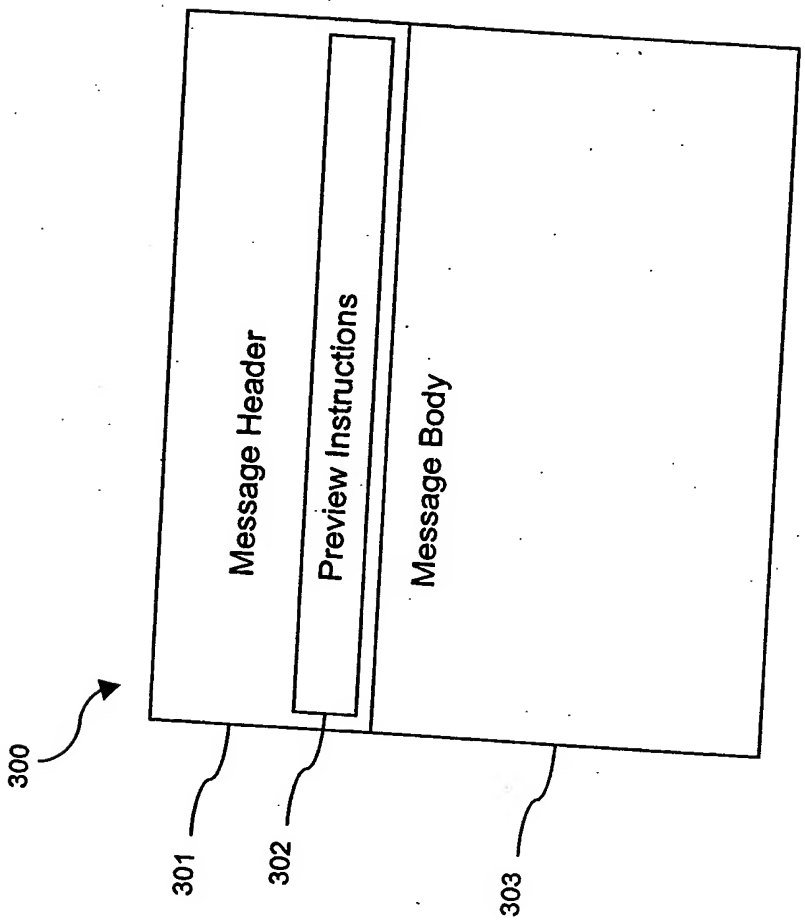

Message Header
Preview Instructions
Message Body
300
301
302
303

Fig. 3a

Fig. 3b

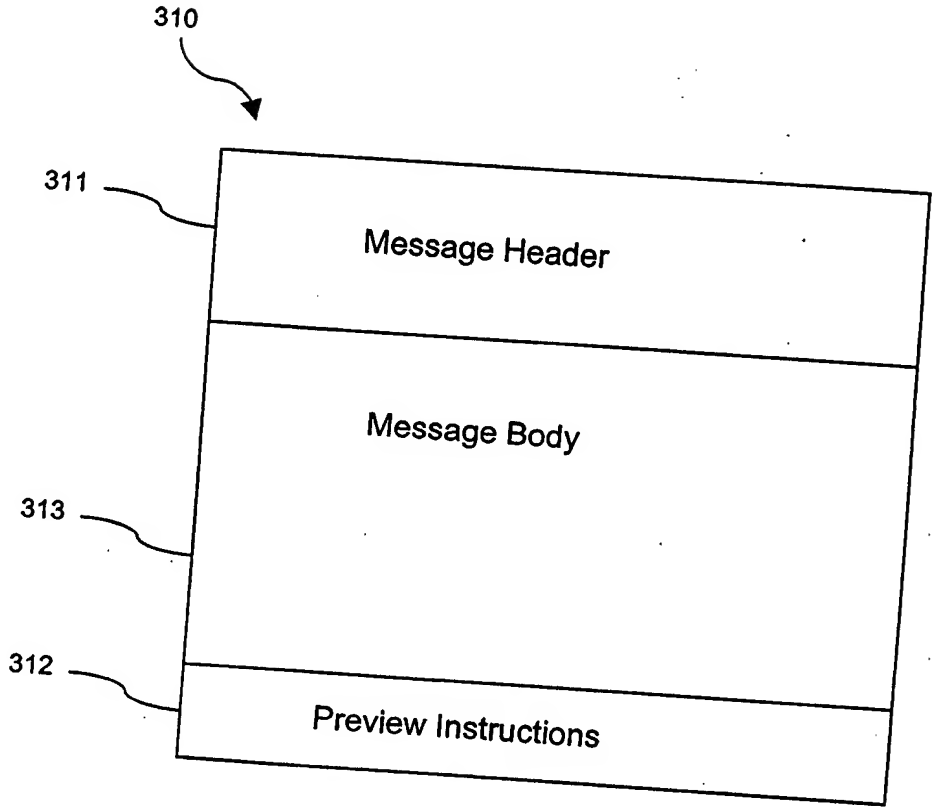

310
311
Message Header
Message Body
313
312
Preview Instructions

Fig. 4

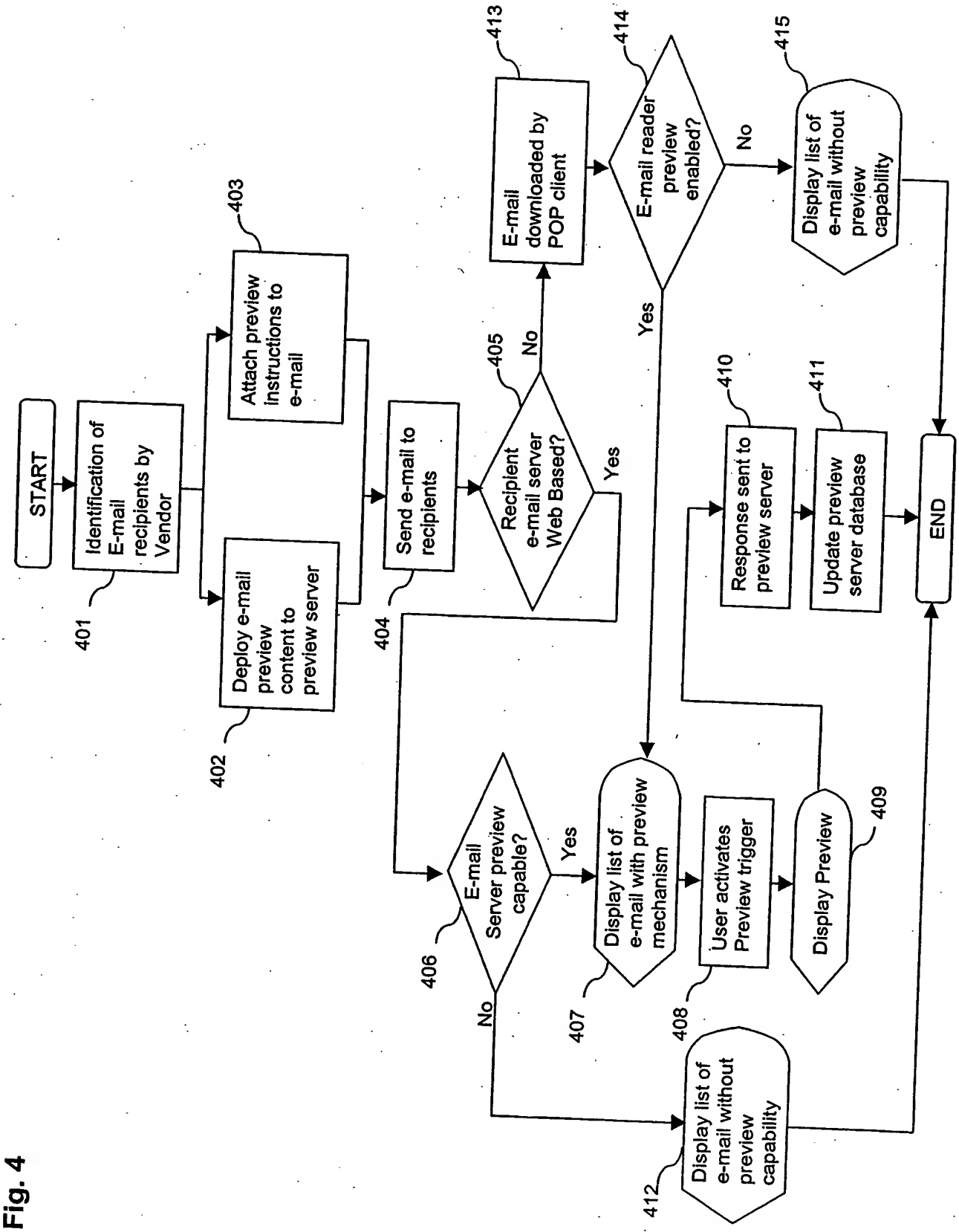
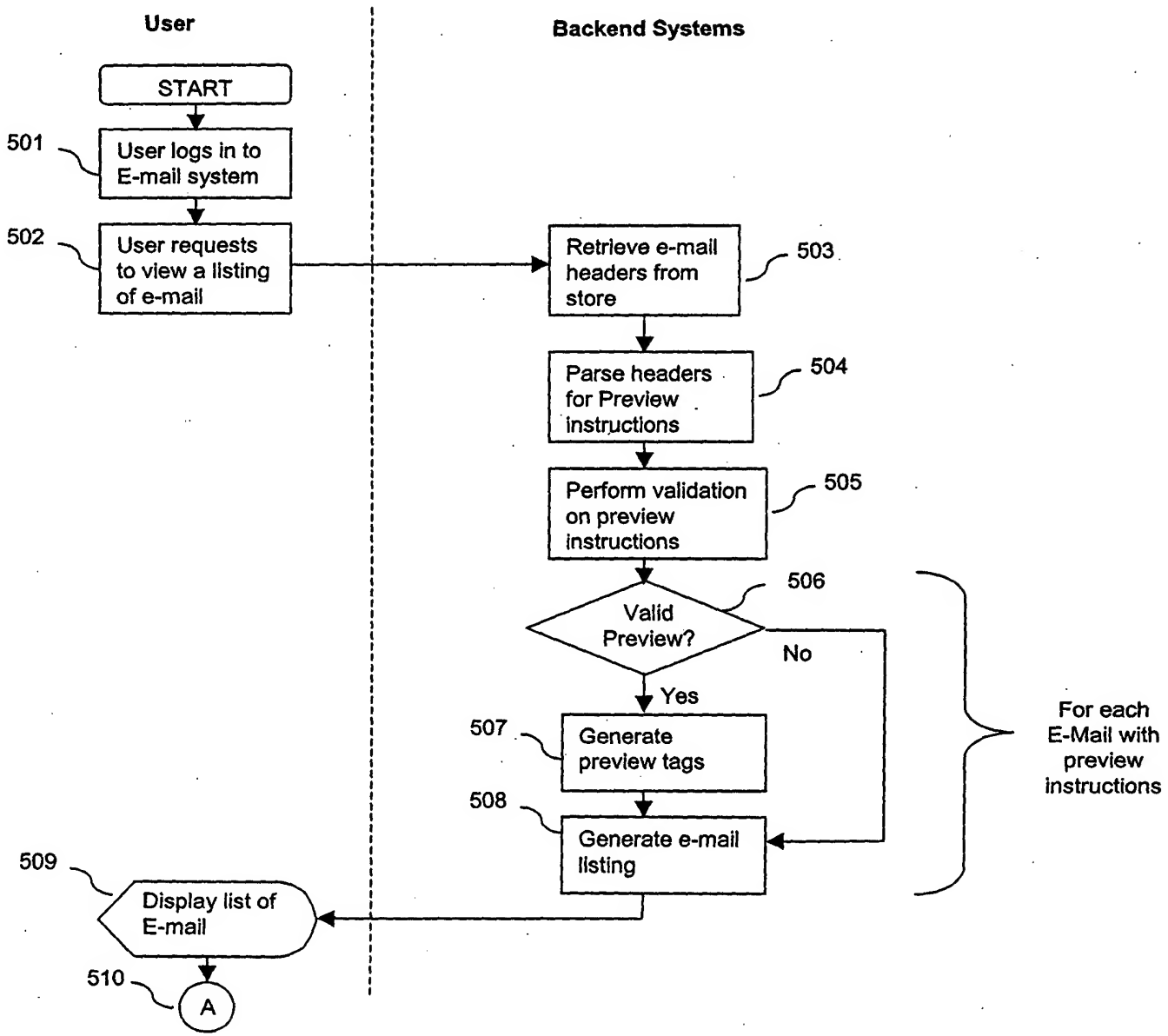

START
Identification of E-mail recipients by Vendor
401
Attach preview instructions to e-mail
403
Deploy e-mail preview content to preview server
402
Send e-mail to recipients
404
Recipient e-mail server Web Based?
405
No
Yes
E-mail downloaded by POP client
413
E-mail reader preview enabled?
414
No
Yes
Display list of e-mail without preview capability
415
E-mail Server preview capable?
406
Yes
No
Display list of e-mail with preview mechanism
407
User activates Preview trigger
408
Display Preview
409
Response sent to preview server
410
Update preview server database
411
Display list of e-mail without preview capability
412
END

Fig. 5


User
Backend Systems
START
501
User logs in to E-mail system
502
User requests to view a listing of e-mail
Retrieve e-mail headers from store
503
Parse headers for Preview instructions
504
Perform validation on preview instructions
505
506
Valid Preview?
No
Yes
507
Generate preview tags
508
Generate e-mail listing
For each E-Mail with preview instructions
509
Display list of E-mail
510
A

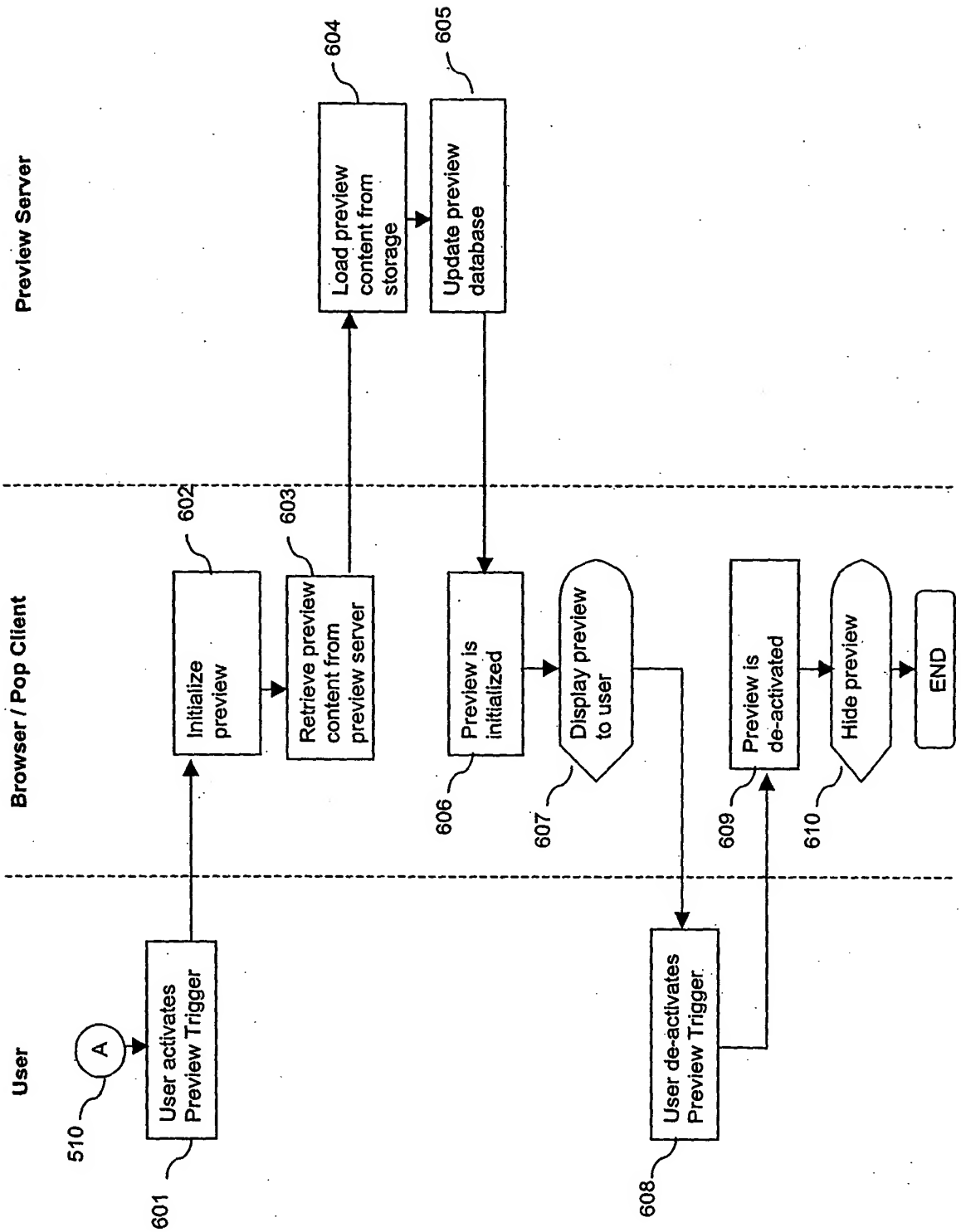

User
Browser / Pop Client
Preview Server
A
510
User activates Preview Trigger
601
Initialize preview
602
Retrieve preview content from preview server
603
Load preview content from storage
604
Update preview database
605
Preview is initialized
606
Display preview to user
607
User de-activates Preview Trigger
608
Preview is de-activated
609
Hide preview
610
END

Fig. 6

Fig. 7a

PREVIEW_TABLE

Preview_ID
Vendor_ID
Preview_Type
URL
Tracking_Code
Dimensions
Max_Views
View_Count
Start_Date
End_Date
Status
Preview_Object

Fig. 7b

TRANSACTION_TABLE

Transaction_ID
Preview_ID
Affiliate_ID
Recipient_Email_Addr
Time_Viewed
Viewer_IP
Viewer_Browser_Type

Fig. 7c

AFFILIATE_TABLE

Affiliate_ID
Name
Domain_Name
Authentication_Info

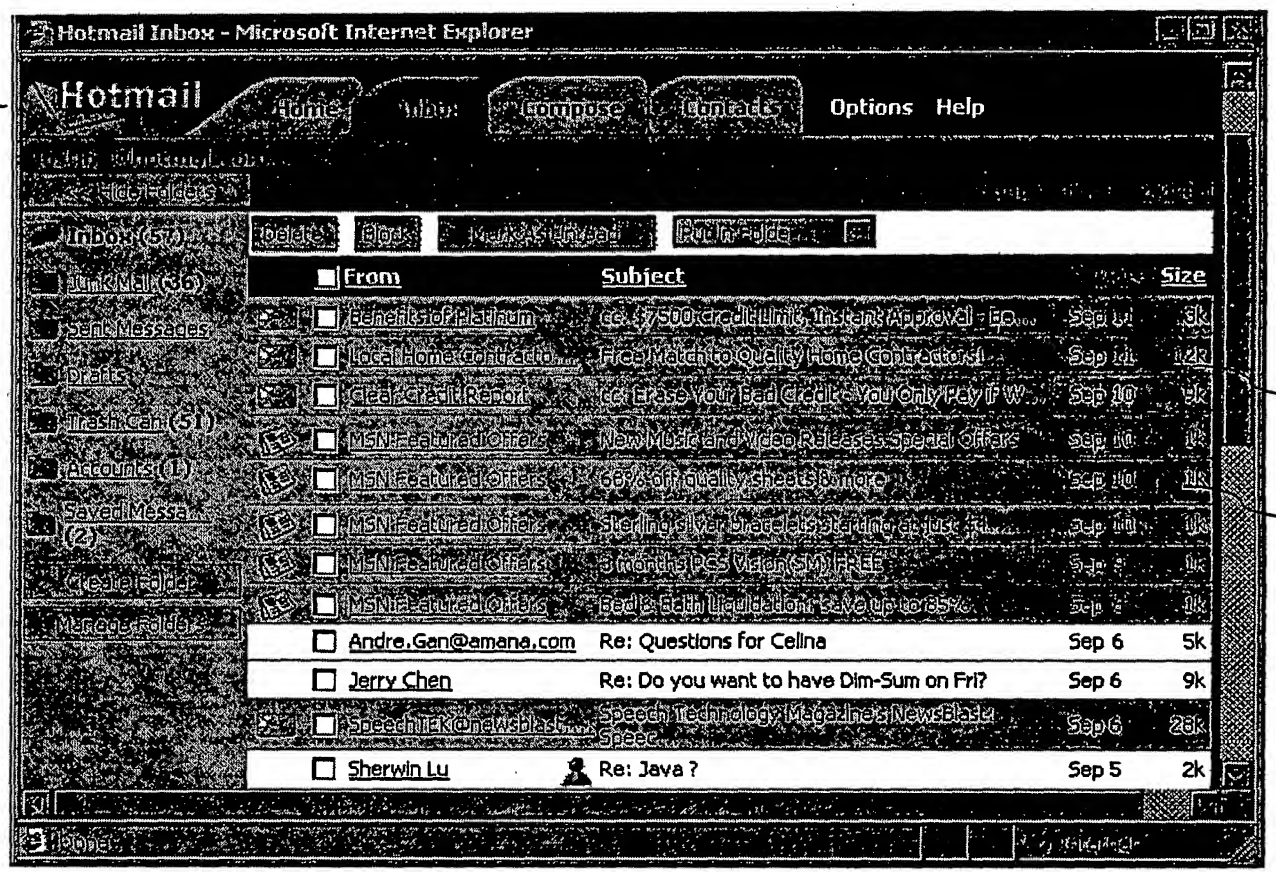
Fig. 7d

VENDOR_TABLE

Vendor_ID
Name
Domain_Name
Authentication_Info

Fig. 8a

PRIOR ART
Hotmail Interface
With MSN Featured Offers



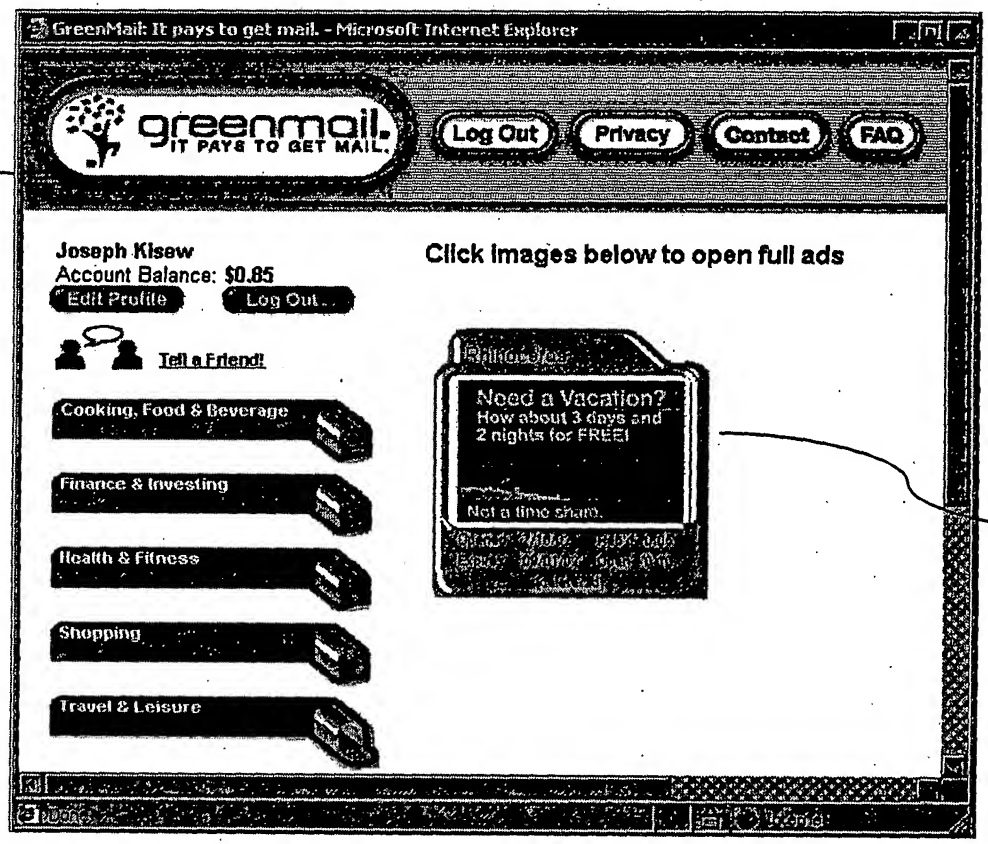
801

802

803

Fig. 8b.

PRIOR ART
Greenmail.com
Static graphical listing



811

812

Fig. 8c.

PRIOR ART
Outlook
Static preview window

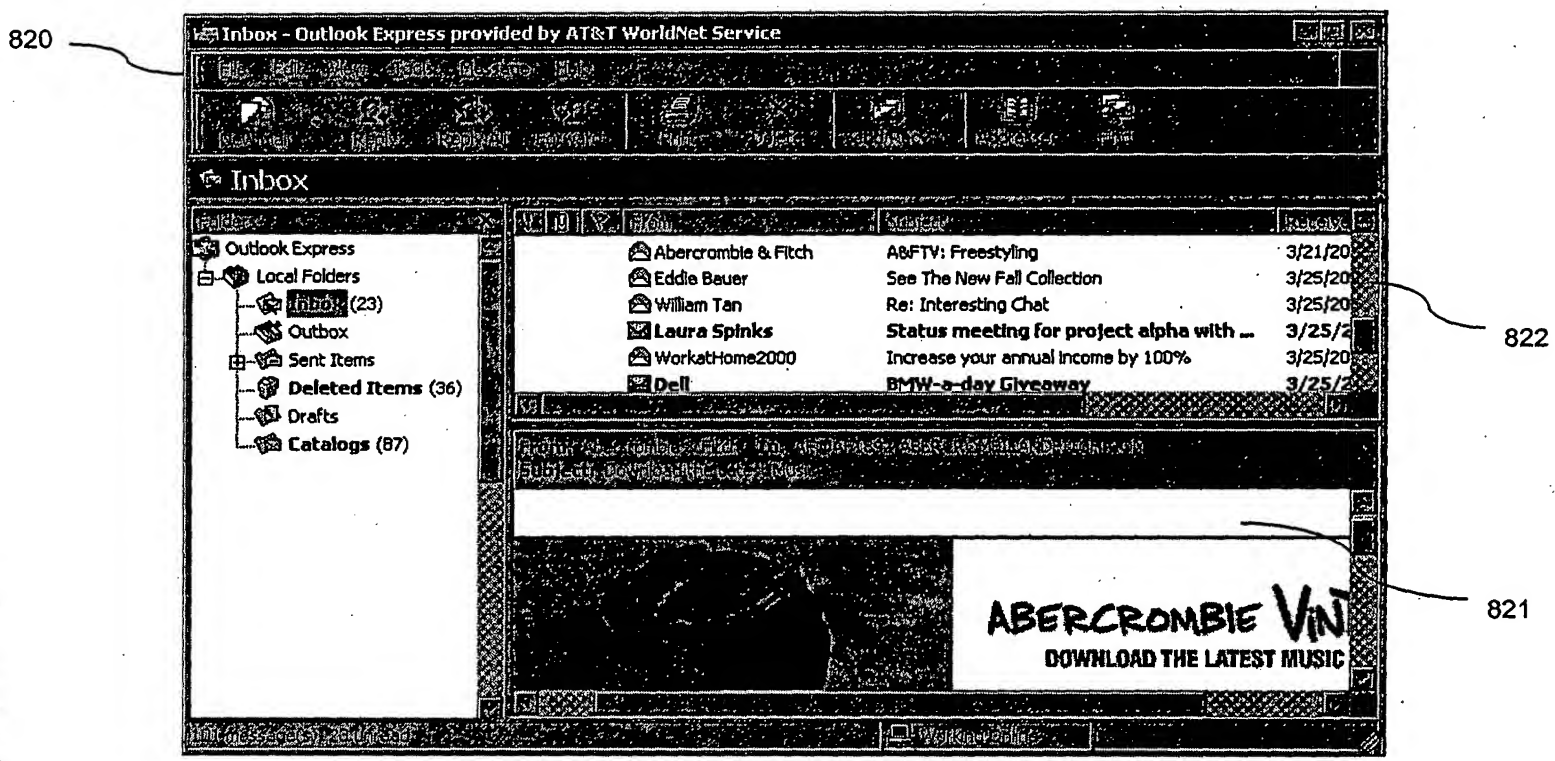
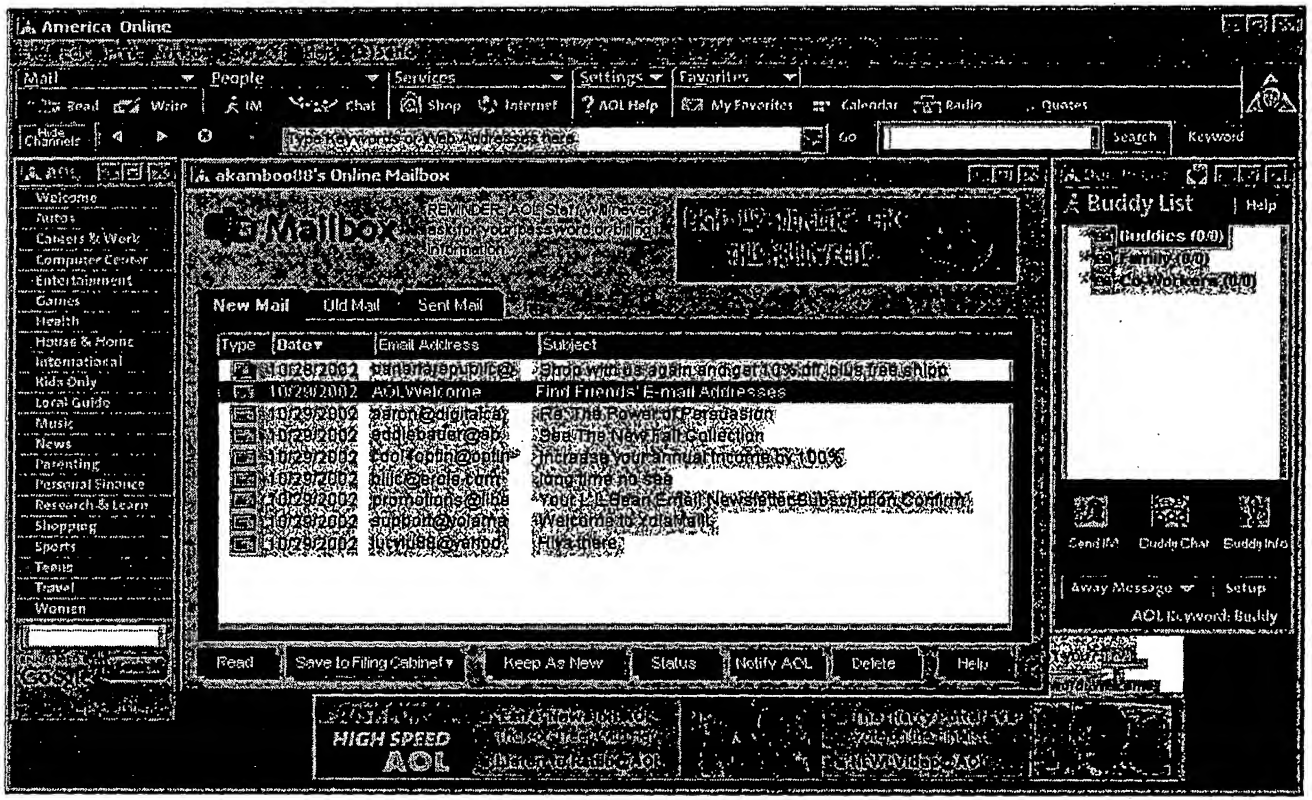


Fig. 9.



Systems and methods for online marketing and advertising on e-mail systems over a network.

BACKGROUND.

The present invention relates to the processing of E-mail messages over a telecommunications network. More specifically, the present invention relates to the enhancement of e-mail technology to provide a preview mechanism whereby senders of e-mail are able to provide special customized graphical messages in addition to the e-mail content.

E-mail is regarded as the Internet's first and one of the biggest Killer Apps. In 2000, International Data Corp., estimates that the average daily volume of e-mail around the world was some 10 billion, and will explode to 35 billion by 2005. Companies online and offline are finding that e-mails are a very effective and low-cost method to keep in touch with their customers. Unfortunately, unsolicited commercial e-mail (spam or UCE) are a big problem. Up to 40% of e-mail traffic on the internet could be classified as spam. The pervasiveness of spam has diluted the power and effectiveness of e-mail as a means to attract, communicate with and keep customers.

The problem of spam is due to the fact that sending an e-mail is very close to being free. Any unscrupulous merchant wanting to obtain as many customers through e-mail as possible has no barrier to e-mailing to as many e-mail addresses as he can get his hands on. In an article by SpamCon Founder Tom Geller, the average cost to send a message to a recipient through postal mail is 75cents, whereas the cost to send an unsolicited e-mail is about a hundredth of a cent. The article further points out when postal mail is concerned, the sender bears 88% of the cost, whereas when it comes to spam, the receiver bears 99.99% of the cost.

Recipients of legitimate and opt-in commercial e-mail often find it difficult to sort through their e-mail and differentiate commercial e-mail that interests them and e-mail that they consider junk. The subject line often does not offer enough description of the content to make the recipient want to open it. Existing e-mail implementations lack the flexibility of creativeness in the "envelope" of the message to entice recipients to open or read it. For example, envelopes of direct postal mail often contain colorful fonts and pictures to attract the user's curiousity, catalogs also have attractive covers and big words to give the recipients a good idea of the content of the catalog. For example, an e-mail with a subject line touting a sale on Sears' Apostrophe line, may not mean much to recipients unfamiliar with the Apostrophe brand. In Sears' catalog however, examples of the Apostrophe line's products may be prominently displayed on the cover of the catalog, prompting recipients attracted to the products displayed to open and browse through the catalog.

There have been a few examples of technology enhancements helping promotions stand out in the inbox of users of e-mail providers. The enhancement might be in the form of a unique icon identifying the promotion as legitimate. **Fig 8a.** shows an example of MSN's MSN Featured Offers promotions sent to users of Hotmail by partners of MSN having a different icon **803**, than ordinary e-mail **802. Fig 8b.** shows an example of Greenmail.com's offers where users are shown a small graphic **812** enticing the user to open the message. Nevertheless both these approaches are not e-mail based. Promoters have to partner with the e-mail provider to send promotions to the e-mail provider's user base using selected targeted information based on the profile of users. Also Greenmail's static graphical approach clutters up the listing of promotions in the user's promotional folder and the static graphics take up a fixed amount of space on the screen.

Microsoft Outlook **Fig 8c.** has what is referred to as a static Preview Window **821.** This preview window is different from the invention's concept of a preview (or teaser) in that the window merely shows a portion of the body of the email and not a separate customized preview message/graphic as described in the invention. As shown in **821,** showing a portion of the body of an email often does not help the recipient understand what the email is about especially if the body of the email is large. The recipient is still forced to scroll in the Preview Window to get an idea of what the email contains. Also the Outlook's preview window is static and takes up a fixed amount of space, thus limiting the space allocated to the listing of email **822** making reading a long list of email very tedious.

SUMMARY OF THE INVENTION

The present invention describes a method and system for enhancing e-mail technology with a preview or teaser (hereafter referred to only as preview). system consisting of an e-mail preview mechanism with preview content served by a preview server. The preview mechanism will be resident on the recipient web-based e-mail server or the recipient's email client. The web-based e-mail server may run, for example, an open-source web-based e-mail Message User Agent (MUA), such as Horde's IMP and Oreilly's SquirrelMail running on a Web Server such as Apache and an SMTP compliant e-mail Message Transfer Agent (MTA) and Delivery Agent (MDA) such as Qmail. The recipient's email client may be Microsoft Outlook. The preview server may be, for example, a merchant's Windows NT server.

One goal is to provide an enhancement to e-mail technology to allow commercial e-mail to have a visual and interactive "envelope", instead of just text indicating the sender and subject line, in order to entice recipients to open the e-mail message. This envelope consists of an additional graphical or multi-media content designed to around interest in the recipient to open the message. It is a further goal to give users a user friendly method to browse through commercial e-mail by being able to view a customized preview of the content of the e-mail message without having to open the message itself. A suggested goal of the invention is to create a new class of e-mail whereby commercial e-mail senders pay to have the preview served to the recipients, creating accountability in e-mail whereby the sender bears the cost of the e-mail. The e-mail service provider, such as Yahoo! Mail and Hotmail gets a cut of the preview serving revenue.

It is a further object of the present invention to provide a method to view a preview associated with an a-mail directly from the an aggregate listing of email without opening the message itself, allowing the e-mail sender to put creative mechanisms such as graphics, animation or multi-media in the preview to entice the user to open the promotion itself. The preview routine further helps the user by giving the user a better idea of the content of the promotion than by guessing from the subject line of the promotion.

It is a further object of the present invention to provide a method to view the previews in a way that does not clutter the email listing "real estate" of the recipient. The invention provides a way to dynamically view and hide the previews, responding to the user's triggering of individual previews.

In a preferred embodiment, an enhanced e-mail authoring software or Message User Agent (MUA) allows commercial e-mail senders to create e-mail content along with a specialized graphical or multi-media "preview". The preview is sent to the preview server and instructions to retrieve the preview are included in the e-mail message, either in the e-mail header or as MIME attachment in the e-mail body.

In a preferred embodiment, when a user requests to view a listing of his e-mail messages, the web-based e-mail software (MUA) parses the e-mail contents or headers for valid preview

instructions and generates browser readable instructions to allow the user to view the preview of individual e-mail messages without leaving the listing of the messages. The software also adds a preview trigger in a form of an icon. When the user moves his mouse over the preview trigger, the preview will be loaded from the preview server.

In a preferred embodiment, the preview will consist of an HTML layer overlay containing one of a plurality of media types such as Gif or Jpeg graphic, Macromedia Flash, Video, Java Applet or an HTML form. The preview triggering routine may be written in a browser scripting language such as JavaScript, VBScript, a proprietary plugin such as Macromedia Flash or other forms obvious to those skilled in the art.

In a preferred embodiment, the previews content will be loaded only after the visible content of the listings are loaded to enable the page to look as if it has completed loading earlier. The previews of the promotion, which may contain graphics and other audio or visual elements, will load in the background while the user is viewing the listing. This can be achieved using script code such as JavaScript that is loaded into the user's browser, server code, or a combination of both.

In a preferred embodiment, a delay is introduced when a user initially mouses over a triggering icon before showing the preview to prevent accidental triggering. A delay is also introduced after the user moves his mouse away from the triggering icon or preview before hiding the preview to allow the user some freedom in the movement of the mouse.

In a preferred embodiment, the preview showing routine allows multiple ways to show the preview – the preview may be made to slide down from under the message listing or progressively appear on the browser window.

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

FIG 1a. is a block diagram illustrating the relationship between a large network and one embodiment of the system and method for online direct marketing and advertising on e-mail systems over a network of the present invention.

FIG 1b. is a diagram explaining the processes performed in a preferred embodiments.

FIG 2a. illustrates an example of a list of ordinary and preview-enhanced e-mail within the interface of a web-based email provider in one embodiment of the present invention..

FIG 2b. illustrates an example of a preview triggered by the hovering of the mouse on top of an icon that serves as a triggering routine in one embodiment of the present invention.

FIG 2c. illustrates an example of content of a preview-enhanced e-mail in one embodiment of the present invention.

FIG 2d. illustrates an example of content of a preview-enhanced e-mail in one embodiment of the present invention where the email client is a stand-alone application (non web browser-based).

FIG 3a. shows a specific embodiment of the preview-enhanced e-mail format in which the preview instructions are included in the header of the e-mail.

FIG 3b. shows a specific embodiment of the preview-enhanced e-mail format in which the preview instructions are included as an attachment in the body of the e-mail.

FIG 4. illustrates the process by which a preview-enhanced e-mail is created, sent and previewed

by the user.

FIG 5. shows a specific embodiment of the present invention of generating a listing of preview-able emails.

FIG 6. shows a specific embodiment of the present invention of retrieving a preview from the preview server and showing it to the user.

FIGS 7A, 7B, 7C and 7D are diagrams showing the basic structure of some of the databases kept by the preview server.

FIGS 8A and 8B. shows examples of Prior Art implementations of non-email promotions delivered to users within a web-based email provider's system.

FIG 8C shows Microsoft Outlook's implementation of a Preview Window with drawbacks described in the secion on Prior Art.

FIG 9. shows the user interface of AOL's Internet client and its proprietary e-mail reader.

DESCRIPTION OF THE SPECIFIC EMBODIMENTS

The present invention describes a method and system for enhancing e-mail technology with a preview or teaser (hereafter referred to only as preview) system consisting of an e-mail preview mechanism with preview content served by a preview server. The preview mechanism will be resident on the recipient web-based e-mail server or the recipient's email client. The web-based e-mail server may run, for example, an open-source web-based e-mail Message User Agent (MUA), such as Horde's IMP and Oreilly's SquirrelMail running on a Web Server such as Apache and an SMTP compliant e-mail Message Transfer Agent (MTA) and Delivery Agent (MDA) such as Qmail. The preview server may be, for example, a merchant's Windows NT server. In the case of a recipient using a non-web-based e-mail provider, the recipient's email client may be Microsoft Outlook.

FIG 1a. shows a simplified representation of the E-mail preview system of the present invention. The basic architecture of the E-mail preview system works over a common Network **12**. In a preferred embodiment, the Network will be the Internet. The Network **12** comprises at least one Vendor's e-mail system **15, 16, 17**, an E-mail Preview Server **14**, connected to an E-mail Preview Storage **13**, at least one affiliate web-based email (WebMail) server **18, 20**, and the user's browser **24**. In an alternative embodiment, where the technology is catered towards non-web-based e-mail service providers, the architecture may include one or more POP or IMAP(hereafter referred to only as POP) based e-mail servers **25, 26** and ther user's POP or IMAP e-mail Client. The architecture also supports an architecture where e-mail is received and displayed on custom proprietary e-mail readers **27**, such as the interface provided by AOL (**Fig 9**).

Each web-based email server will include a client preview process **19, 21** that is responsible for the integration and communication between the WebMail server processes **18, 20** and the preview server **14.** In the case of the user using a POP based e-mail service provider a plugin client process **24**, may be integrated into the user's e-mail reader **27.** In cases where the user is accessing his e-mail through a customized ISP interface **27,** the interface will contain a client preview process.

The discussion of the invention will now focus on the web-based email affiliate systems **15,16,17** although it equally applies to the POP-based and proprietary ISP e-mail reader solutions. A

person skilled in the art would be able to apply the processes and technologies discussed in the web-based e-mail system scenario to the POP based and Proprietary ISP e-mail reader systems.

FIG 1b. shows the various components of the said invention in a preferred embodiment. The WebMail Server **100,** consists of the affiliate's e-mail server application **101**, or more specifically a receiving Message Transfer Agent (MTA) such as Qmail, the affiliate's web-based email application **102,** or more specifically a Web-based Message User Agent (MUA) such as the open source Horde project's IMP running on a Web (HTTP) server **112** such as Apache, email storage **104** and a preview client application **103.** The preview client application may physically consist of a modification to the affiliate's original Web-based MUA **102.**

The Preview Server **108,** consists of the preview serving application **109,** preview storage **110,** and storage for transactions and accounts information **111.**

The Vendor E-mail system **105** consists of the e-mail sending application **106,** or more specifically a sender MTA and a storage mechanism to store e-mail content **107**, before sending the e-mail to recipients.

The WebMail Server **100,** Vendor E-mail Server **105**, and the Preview Server **106**, are connected by a common Network **12.**

The Network **12,** in a preferred embodiment is the Internet. E-mail sent from the Vendor E-mail server **105**, gets routed to the WebMail Server **100**, using the Simple Mail Transfer Protocol (SMTP) protocol over TCP/IP. The user reads his e-mail on a Web-Based e-mail Application **102**, using a Web Browser **22**, over HTTP. The Preview is retrieved from the Preview Server **108** using HTTP, although a plurality of protocols familiar to the people skilled in the art may be used. These protocols may include, FTP, streaming protocols, TCP and UDP.

E-mail Preview

Fig 2a. shows an example of a Web-based e-mail provider's user interface **201,** that has been preview-enabled. E-mails that contain preview instructions **202,** are marked by a preview icon **203,** signifying to the user that he may place his mouse over the icon **203**, to activate the preview. **Fig 2a.** also shows a plurality of commercial e-mail that do not contain preview instructions **204.** These listings appear as ordinary listing without the preview icon **203.** The listings of the e-mails **202, 203** contain links to the content of the e-mail itself.

Fig 2b. shows an example of a Web-based e-mail provider's user interface **230,** that has a preview activated **233.** The user has placed his mouse cursor over the triggering icon **232**, of a listing of an e-mail **231**, that he is interested in. Upon triggering the preview, the preview content **233**, appears to slide out from under the listing entry **231,** and remain open until either the user moves his mouse away from both the preview content **233**, and the triggering icon **232.** The previewing routine is implemented as a DHTML layer controlled by JavaScript. Other methods may be used, such as Macromedia Flash, Java or a proprietary plugin and any methods familiar to those skilled in the art.

The preview content **233,** may also appear to show on the screen using different visual techniques, such as slide out from under the listing, pop-out, without a sliding effect, and may either rest adjacent to the bottom of the listing **231**, or be animated and move across the page. The preview content **233,** may consist of graphical elements such as Gif and Jpeg images, interactive rich media, which may include audio and video, such as MacroMedia Flash, DHTML, JavaApplets, Windows media clips and any other interactive medium familiar with those skilled in the art. Clicking on the preview content **233**, will either open the content of the e-mail itself **231**, or

bring the user to a web-page resident on the internet. If the Preview content **233,** consist of interactive elements, such as a HTML form or Macromedia Flash, the user may be able to dynamically interact with a web application resident elsewhere on the Internet through the activated preview window.

The total payload of all the previews in the e-mail listing **230** may be quite huge, thus slowing down the overall loading of the page. This effect is mitigated by ensuring that the initial loading of the page does not include the loading of the "heavy" objects in the preview content, such as graphics. One method to achieve this is to initially put in lightweight content or images in place of the heavyweight graphical preview content **233**, during initial loading of the page (in the HTML code), then triggering the loading of the heavyweight graphical preview **233**, by a JavaScript code after the page listing the e-mails has finished loading to the user's browser. The JavaScript code will load the heavyweight graphical previews from the preview server, and replace the lightweight content or images with the heavyweight content before the previews **233** are shown. Another method to achieve a "fast load" of the page **230** is to activate the loading of the heavyweight content only after the user has triggered the preview loading routine **232**. This method may result in the user being subjected to a delay in the loading of the preview. In this embodiment of the invention, both methods are used.

A preferred embodiment of the invention further includes the ability to load preview content using a predictive loading algorithm to determine the order in which preview content are loaded in the background. The algorithm may take into account the priority given to the promotion and the size of the preview content. In addition, the algorithm may load previews based on the real-time triggering pattern of the previews by the user, which may include the proximity of non-yet-loaded previews from previously viewed and loaded previews. An example would be when the user triggers a preview **232**, any not-yet-loaded previews in close proximity to the triggered preview-able e-mail **231** would be loaded in the background.

Another suggested enhancement to this feature is to take advantage of the Keep-Alive feature of the HTTP protocol (persistent HTTP) wherein a series of requests for content can me made on a single TCP/HTTP connection to the promotions server allowing the content to be loaded faster. Other methods to achieve dynamic loading may include using technologies such as Flash and Java or other routine familiar to those skilled in the art wherein, the preview content may be streamed to the browser giving the user an impression that the content is loading quickly.

In cases where the network is slow and there is considerable delay loading a preview after a user has activated the preview trigger, a routine is executed to delay the appearance of the preview until the preview has completely loaded. During this delay, an animation can be shown to signal to the user that the content is currently loading.

Also in order to prevent accidental triggering, in a specific embodiment of the invention, delays are introduced in the preview triggering mechanism **232** to ensure that the user has his mouse over the preview trigger a specific period of time before the preview is actually triggered and shown to the user. To allow the user some leeway, a delay is also introduced before the preview is hidden after the user has moved his mouse away from the preview trigger **232** or preview content layer **233.**

Fig 2c. shows an example of an e-mail content **240** on a Web-based e-mail provider's user interface.

Fig 2d. shows an embodiment of the invention as a stand-alone email application (non web browser-based). This application may be a Windows, Apple or UNIX based email client that communicates with the e-mail server via POP, IMAP or a proprietary protocol. The stand-alone email client **250** interface contains a list of email messages, wherein special preview enhanced messages **251** is shown with special "trigger" icons to allow recipients to mouseover the icons **252** which will trigger and make visible the preview message **253**. The development of an email

client is already known to those skilled in the art. The enhancement provided by the invention allows for the additional routine of reading the content of the email for preview instructions and showing the preview content on top of the e-mail listing.

E-mail Preview Format

Fig 3a. shows a simplified specific embodiment of the E-mail preview format **300** where the preview instructions **302** are included in the e-mail message's headers **301.** The preview instructions **302,** may be included as a user-defined header, headers beginning with an "X-". An example of a header of a preview-enhanced e-mail using user-defined headers is given below:

```
From: "Jane Sender" <jane@sender.com>
To: jwebb@yahoo.com
Bcc:
Subject: Sale on all leather jackets
Date: Sat, 26 Sep 2002 09:20:17 +0000
Mime-Version: 1.0
Content-Type: text/html
X-Preview: URL=http://previewserver.com/getpreview?preview_code=
  A3123G11&email=jwebb@yahoo.com|TYPE=MacromediaFlash6.0|
  DIMENSION=480x200|PREVIEW_SCRIPT_VERSION=2.05
```

The preview instructions are included in the user-defined header "X-Preview:". In a simplified specific embodiment of the invention, the preview instructions include the URL of the preview content **233,** which is served by the preview server **108,** and the information needed to configure the preview viewing routines to display the preview. In this embodiment, the recipient's e-mail address is sent as an argument to the Preview Server, to track that the recipient has indeed triggered the preview. Other more sophisticated and private tracking methods may be used, such as using SSL to retrieve the preview, encoding or encrypting the email address information, using a hash of the email address or any other method familiar to those skilled in the art.

Fig 3b shows an alternative embodiment of the invention, in which the preview instructions are attached as a MIME attachment to the e-mail message, an example of which is given below:

```
From: "Jane Sender" <jane@sender.com>
To: jwebb@yahoo.com
Subject: Sale on all leather jackets
Date: Sat, 26 Oct 2002 09:20:17 +0000
MIME-Version: 1.0
Content-Type: multipart/mixed;
       boundary="----=_NextPart_000_0036_01C26FEC.EE6C38B0"

This is a multi-part message in MIME format.

------=_NextPart_000_0036_01C26FEC.EE6C38B0
Content-Type: text/html;
Content-Transfer-Encoding: quoted-printable

<html>
<STRONG>
Hello Joe,
</STRONG><BR>
We are having a blowout leather jacket sale this weekend!<BR><BR>

<A href="http://sendersite.com/sale/">Click here</A> for more
information.<BR><BR>
```

```
See you soon!<BR>
Regards,<BR>
Jane Sender
</html>

------=_NextPart_000_0036_01C26FEC.EE6C38B0
Content-Type: application/x-preview;
Content-Transfer-Encoding: quoted-printable

URL: http://previewserver.com/getpreview?preview_code=A3123G11&email=
  jwebb@yahoo.com
TYPE: MacromediaFlash6.0
DIMENSION: 480x200
PREVIEW_SCRIPT_VERSION: 2.05

------=_NextPart_000_0036_01C26FEC.EE6C38B0--
```

The preview instructions are included as an attachment(Multipart/Mixed) of type "application/x-preview". The preview instructions may alternatively be encoded in an XML envelope to allow for easier manipulation by XML enabled parsers.

Another embodiment of the MIME "attachment" alternative would be to attach the preview instructions using a "Multipart/Related" or "Multipart/Alternative" encoding instead.

E-mail Preview Process Overview

Fig. 4 illustrates the process of a preferred embodiment of the invention by which a preview-enabled e-mail is sent to the recipients. In **Fig 4.** the vendor identifies a list of e-mail recipients it wants to send the e-mail to **401.** The vendor creates both the e-mail content, and a graphical preview "envelope" content to go with the e-mail. The preview content is deployed at the preview server **402.** Then preview instructions are attached to each outgoing e-mail **403** using a customized Message User Agent (e-mail composer tool) which includes the preview instructions as part of the e-mail header. The e-mails are then sent to the recipients **404** by the vendor's Message Transfer Agent (outbound e-mail server). If the recipient's e-mail service provider is web-based such as Hotmail **405,** and if the web-based e-mail service provider is capable of processing preview instructions in e-mail **406,** then a list of e-mail with preview triggering mechanisms is generated and displayed **407** to the user, such as in **Fig 2a.** If the web-based e-mail service provider's software is not capable of processing preview instructions in e-mail, then the preview enabled e-mail will still be listed **412,** but as in **Fig 2a.**, the listing will not have any preview mechanisms or icons **203.**

If the recipient's e-mail service provider is not web-based, but POP based **405,** and if the user's e-mail reader is capable of processing preview instructions in e-mail **414,** then a list of e-mail with preview triggering mechanisms is generated and displayed **407** to the user. If the e-mail reader software is not capable of processing preview instructions in e-mail, then the preview enabled e-mail will still be listed **415,** but the listing will not have any preview mechanisms or icons **203.**

Not shown in **Fig 4.** is a further embodiment of the invention, wherein the recipient receives his e-mail on a proprietary customized e-mail reader, such as AOL (**Fig 9**), a listing with preview mechanisms will be shown if the e-mail reader contains routines capable of processing preview instructions in e-mail.

In a preferred embodiment, the preview instructions contain authentication information to allow the web-based email provider to identify the preview server party, and to allow the preview server to identify the vendor which sent the e-mail.

Generating the E-mail listing

Fig. 5 illustrates the process by which the listing of preview enabled e-mails **201** is generated in the embodiment of the invention. The process begins when a user logs in to the web-based email system **501**, and the user clicks on a link to show a listing of his e-mails **502.**

When the action is taken to generate the listing of e-mails, the preview client process integrated with the web-based e-mail application issues a call **503** to retrieve the e-mail headers and other summary information about the e-mails to generate a listing of the e-mail **201**. This information may include the Sender's name, E-mail Subject, Date, Size of the e-mail, whether there are attachments as well as preview instructions, if present, in the header. The backend system refers to the components in **Fig 1b.** on the WebMail Server **100** and optionally the Preview Server **108.**

The aggregate information of the e-mail listing is then parsed for preview instructions **504.** If the e-mail contains preview instructions, then a validation routine **505**, is performed on the preview instructions. The validation routine in the specific embodiment of the invention, checks to ensure that the preview server serving the preview is a trusted partner of the web-based e-mail provider and that the web-based e-mail system has the capabilities to serve the preview.

If the e-mail contains valid preview instructions **506**, then for the entry of the e-mail in the listing, the necessary preview triggering information **203** is included for the e-mail entry **202** in the listing **201.** If the e-mail does not contain preview instructions or if the preview instructions are not valid, then the listing of the e-mail is generated without the preview triggering information **204.**

The preview triggering information includes appending an icon and the "onMouseOver" and "onMouseOut" JavaScript instructions to trigger the preview when the user moves his mouse over the triggering icon **203.** In the specific embodiment of the invention, a hidden HTML layer is created for each of the entries to place the preview content in when the user activates the triggering mechanism. This is achieved using the <DIV> </DIV> tags and setting the position style variable to "absolute" and visibility style variable to "hidden" and when the trigger is triggered, the visibility variable is set to "visible" thus showing the hidden preview content. Alternative embodiments may use one only one hidden HTML layer that is shared between different previews or any other methods to achieve the overlay or sliding out effect familiar to those skilled in the art. After all the entries of e-mails are generated, the complete e-mail listing is displayed to the user **509.**

Activating the Preview

Fig. 6 illustrates the process in a preferred embodiment of the invention where the user activates the preview trigger **203** in a preview listing **201.** After the user has logged on and a list of e-mails has been displayed to the user **510**, the user moves his mouse over a triggering icon and activates the preview trigger **601.** This will cause a script process running on the user's browser to initialize the preview **602.** The routine then makes a HTTP call to retrieve the preview content **603**, from the preview server. Upon receiving a call from the browser, the preview server process examines the parameters of the HTTP call from the browser to determine the authenticity of the request, the unique code of the preview as well as the identity of the web-based email provider which is hosting the e-mail. The content of the preview is then loaded from the preview storage **605.** The preview database is then updated to reflect the transaction **605** and the preview content is sent to the browser through the HTTP connection.

The preview process on the browser then performs final initialization routines **606** – this may include passing parameters to a Macromedia Flash or Java Applet based preview content. Once the preview content has finished initializing, the preview is displayed to the user **607.** In a preferred embodiment of the invention, the preview appears to slide-out from under the e-mail listing. This is done by noting the position of the triggering icon and positioning the preview layer

under the icon. The sliding-out effect may be performed by placing a visible layer containing the preview content within a transparent layer and setting the transparent layer's overflow style attribute to "hidden". When the trigger is triggered, the transparent layer is positioned below the triggering mechanism, whereas the visible layer containing the preview content is positioned above the transparent layer thus making it the preview content initially "hidden" as the content is outside the boundaries of the transparent layer. A routine is then performed where the preview content layer is gradually positioned downwards until it fits exactly inside the transparent layer – giving the impression of the preview content sliding down from under the selected email line. This process is done using JavaScript. Other forms of automation may be used including the use of the transparent effects of Macromedia Flash as well as well as technologies borrowed from the online advertising "banner" industry employed by Eyeblaster and PointRoll. In another embodiment of the present invention, the preview may be an animation that appears across the browser window instead of a fixed position under the e-mail listing. An additional embodiment may allow for the preview to appear in a fixed position on the application or browser window.

After the user has seen the preview, the user may de-activate the preview by moving the mouse away from the preview trigger **608.** This will trigger a "onMouseOut" routine that will deactivate **609** and hide **610** the preview.

Database Tables

Fig 7a, 7b, 7c and **7d**, illustrate simplified relational database tables stored within the preview server's database storage in a preferred embodiment of the invention. The "PREVIEW_TABLE" table contains information about each preview stored on the Preview Server. Each preview is identified internally with a Preview_ID, and identified externally with a Tracking_Code. Each preview is also tied to a Vendor which is represented by the Vendor_ID.

The "TRANSACTION TABLE" contains a record of each preview served. The field "Recipient_Email_Addr" identifies the recipient of the e-mail who retrieved the Preview and the field "Affiliate_ID" refers to the web-based e-mail provider hosting the e-mail account of the recipient. In a preferred embodiment of the invention, the Affiliate web-based e-mail provider will receive a cut of the revenue from each transaction or preview served. A suggested alternative to using the user's e-mail address in the "Recipient_Email_Addr" field, a unique token may be used, or the e-mail may be encrypted or hashed with the vendor's private key to protect the e-mail recipient's privacy.

The "AFFILIATE_TABLE" contains a record of each Affiliate of the Preview Serving company. The Affiliate may be a web-based e-mail provider like Hotmail and Yahoo! Mail, an ISP such as AOL or any other businesses hosting preview enabled e-mail accounts for users.

The "VENDOR_TABLE" contains a record of each customer of the Preview Serving company who uses the Preview Serving company's Preview Servers to serve e-mail Previews.

Conclusion

In the foregoing specification, the invention has been described with reference to specific exemplary embodiments thereof. Other embodiments will be apparent to those of ordinary skill in the art.

For example, the preview mechanism may be integrated into non-web based e-mail email providers. It may be integrated into a proprietary e-mail interface such as AOL or it may be integrated into Outlook as an ActiveX plugin.

The preview mechanism may also be integrated into e-mail applications designed for mobile

devices such as cellular phones and PDAs.

The Vendor that sends out the e-mail may be an e-mail service provider, sending out e-mail on behalf of businesses.

The preview components may also be configured and deployed differently. For example the applications shown in **Fig 1b.** running on the WebMail Server **100**, may be physically deployed on multiple different but connected servers. In another possible embodiment, the preview server may be physically located within and hosted by the webmail server's network. In another possible embodiment, the preview storage may be on a distributed caching network such as Akamai's network.

The invention where the dynamic user triggered preview elements are concerned also covers cases where the message is not technically an email message but a message that appears within an aggregate of messages. One such example is where marketing promotions are placed directly within a web-mail user's inbox without being formatted to standard email specifications and without being routed through standard email systems.

The invention also includes cases where the preview instructions and mechanisms are secured to protect from fraud. Such methods may include encrypting the instructions, using digital certificates and other fraud prevention mechanisms applicable to messages familiar to those skilled in the art.

Fig. 1a

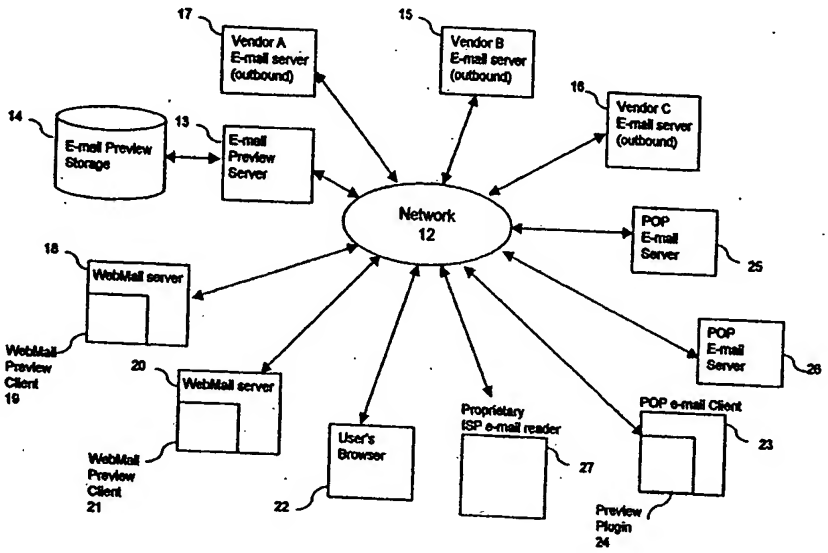

17
Vendor A E-mail server (outbound)
15
Vendor B E-mail server (outbound)
16
Vendor C E-mail server (outbound)
14
E-mail Preview Storage
13
E-mail Preview Server
Network 12
POP E-mail Server
25
18
WebMail server
WebMail Preview Client 19
20
WebMail server
WebMail Preview Client 21
User's Browser
22
Proprietary ISP e-mail reader
27
POP e-mail Client
23
Preview Plugin 24
POP E-mail Server
26

Fig. 1b

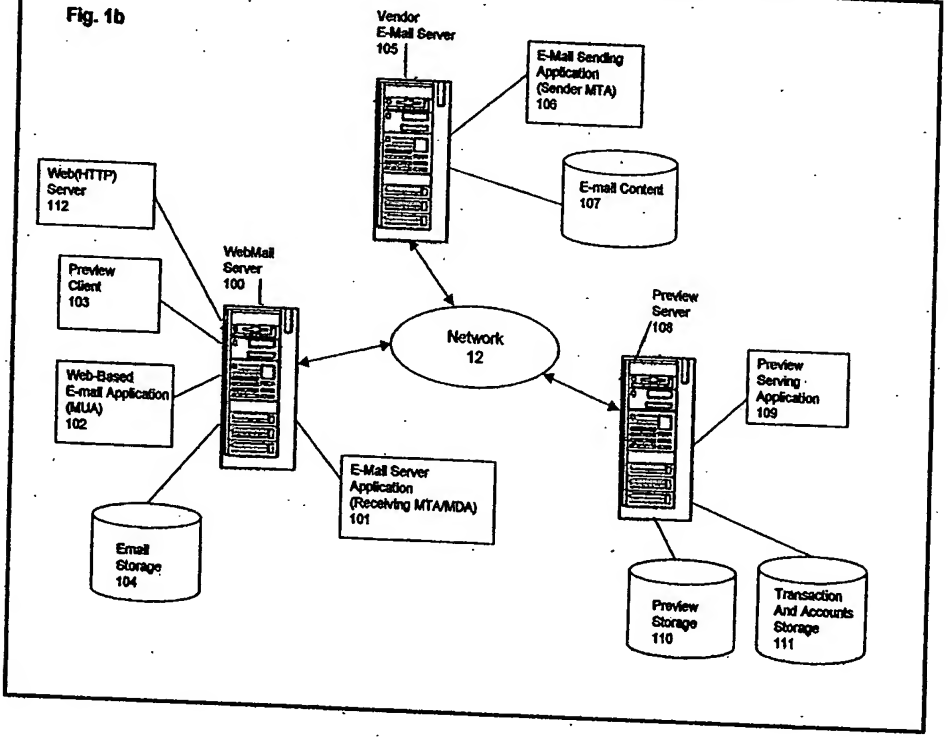

Vendor E-Mail Server 105
E-Mail Sending Application (Sender MTA) 106
E-mail Content 107
Web(HTTP) Server 112
Preview Client 103
WebMail Server 100
Network 12
Preview Server 108
Preview Serving Application 109
Web-Based E-mail Application (MUA) 102
E-Mail Server Application (Receiving MTA/MDA) 101
Email Storage 104
Preview Storage 110
Transaction And Accounts Storage 111

Fig. 2a

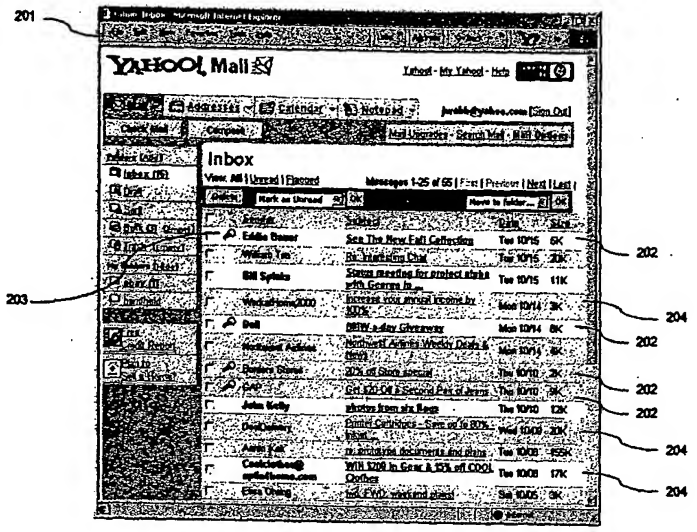


Fig. 2b

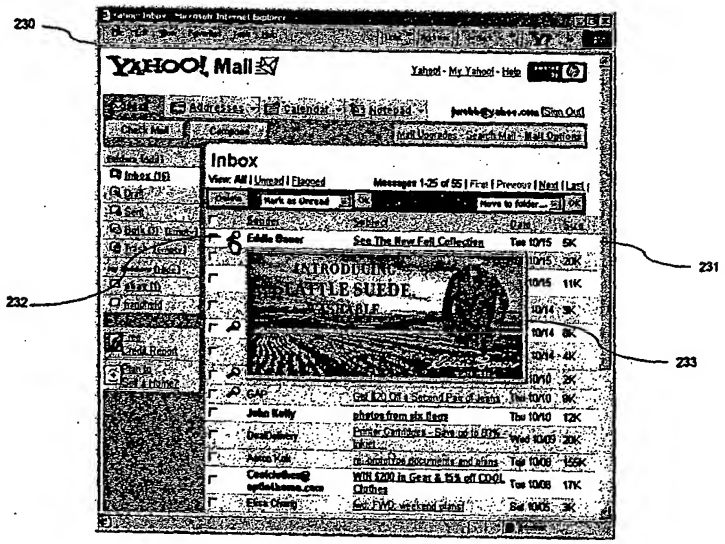


Fig. 2c

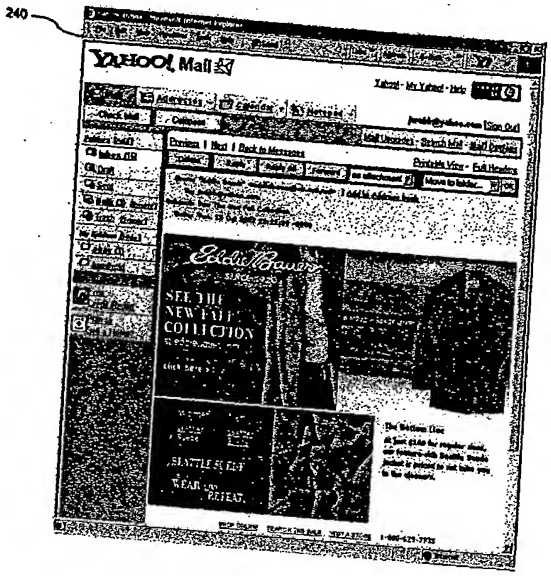


Fig. 2d

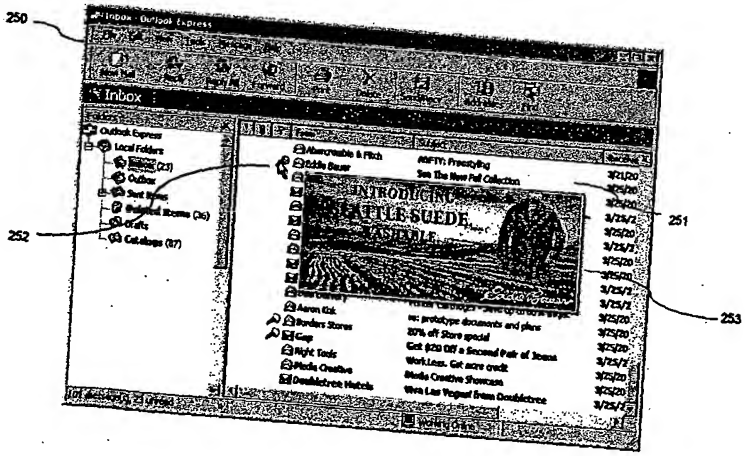


Fig. 3a

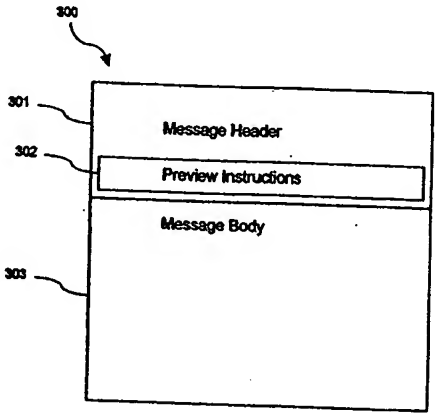

300
301
Message Header
302
Preview Instructions
Message Body
303

Fig. 3b

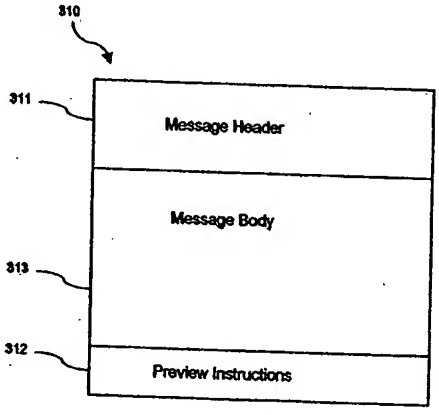

310
311
Message Header
Message Body
313
312
Preview Instructions

Fig. 4

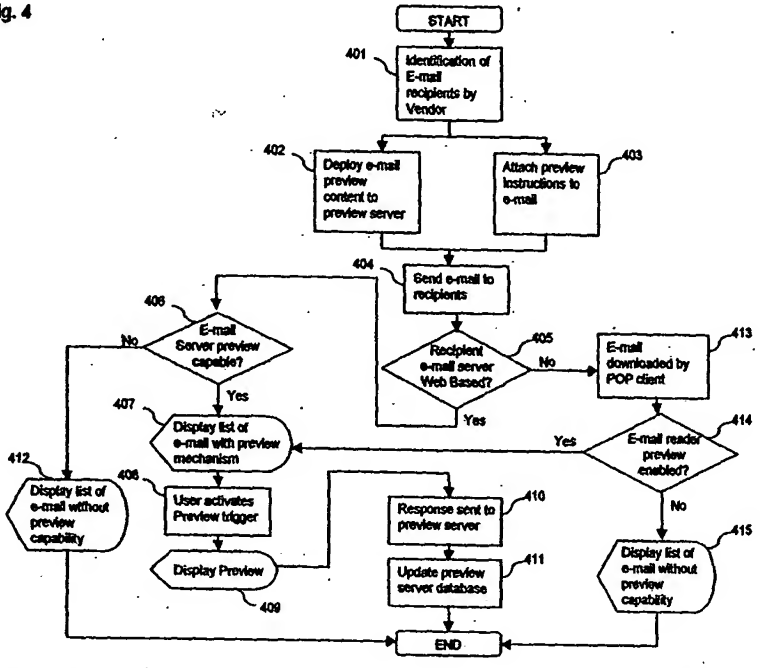
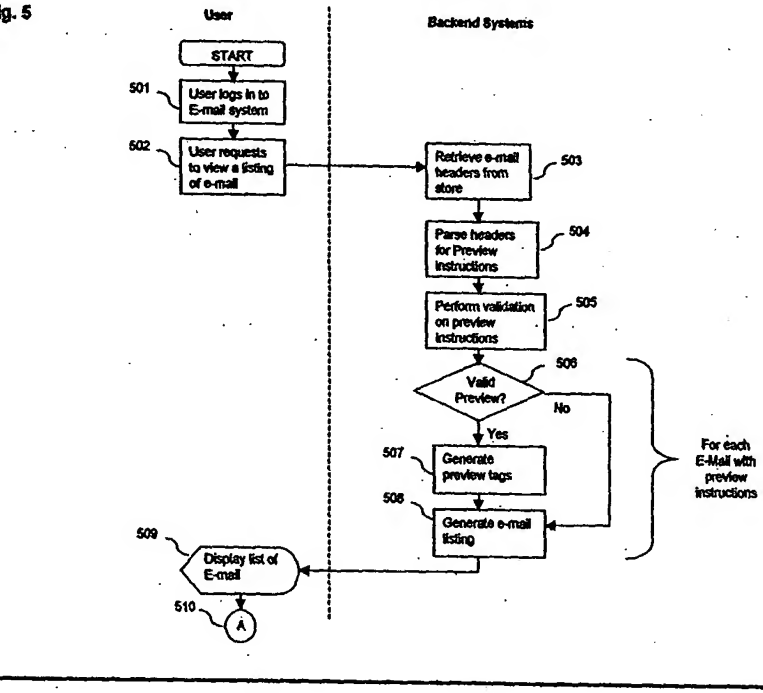

START
401
Identification of E-mail recipients by Vendor
402
Deploy e-mail preview content to preview server
403
Attach preview instructions to e-mail
404
Send e-mail to recipients
406
E-mail Server preview capable?
No
Yes
405
Recipient e-mail server Web Based?
No
Yes
413
E-mail downloaded by POP client
414
E-mail reader preview enabled?
Yes
No
407
Display list of e-mail with preview mechanism
412
Display list of e-mail without preview capability
408
User activates Preview trigger
Display Preview
409
410
Response sent to preview server
411
Update preview server database
415
Display list of e-mail without preview capability
END

Fig. 5


User
Backend Systems
START
501
User logs in to E-mail system
502
User requests to view a listing of e-mail
503
Retrieve e-mail headers from store
504
Parse headers for Preview instructions
505
Perform validation on preview instructions
506
Valid Preview?
No
Yes
507
Generate preview tags
508
Generate e-mail listing
For each E-Mail with preview instructions
509
Display list of E-mail
510
A

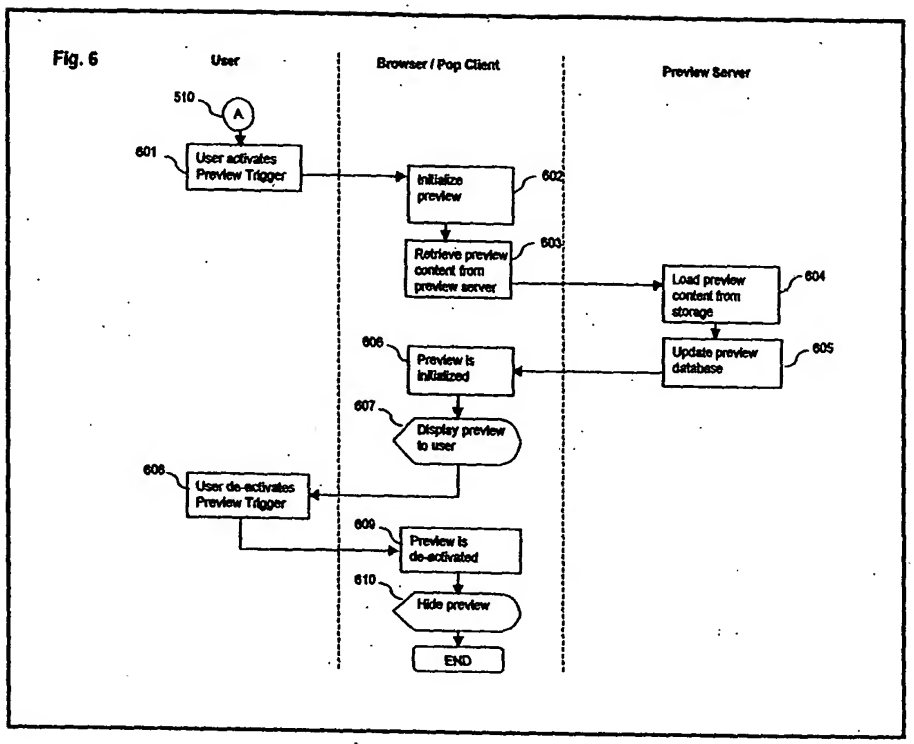


Fig. 6
User
Browser / Pop Client
Preview Server
510
A
601
User activates Preview Trigger
602
Initialize preview
603
Retrieve preview content from preview server
604
Load preview content from storage
605
Update preview database
606
Preview is initialized
607
Display preview to user
608
User de-activates Preview Trigger
609
Preview is de-activated
610
Hide preview
END

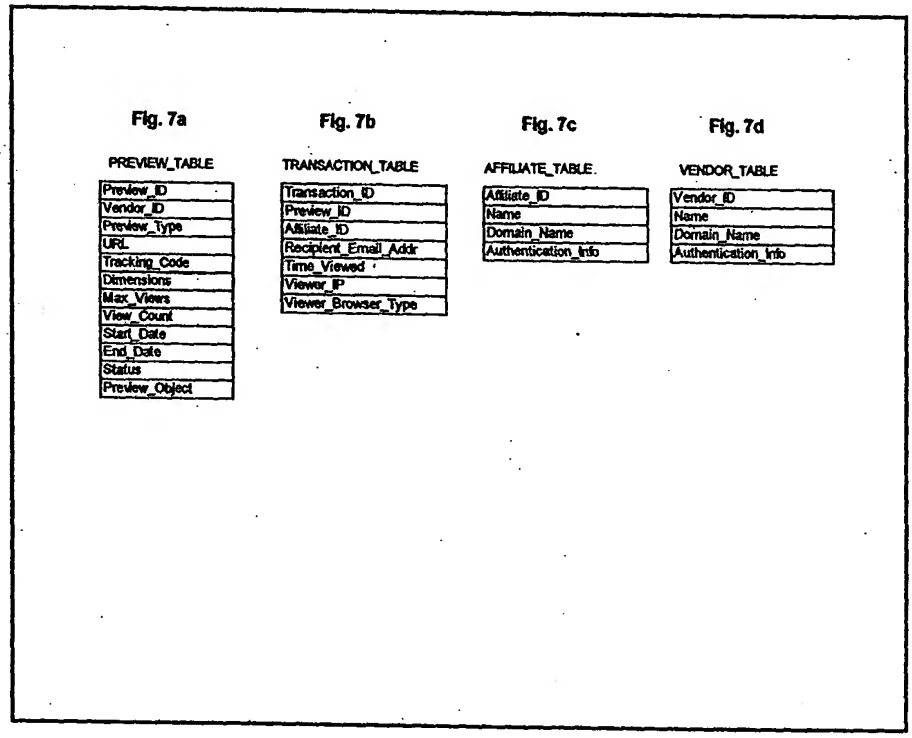


Fig. 7a
PREVIEW_TABLE
Preview_ID
Vendor_ID
Preview_Type
URL
Tracking_Code
Dimensions
Max_Views
View_Count
Start_Date
End_Date
Status
Preview_Object
Fig. 7b
TRANSACTION_TABLE
Transaction_ID
Preview_ID
Affiliate_ID
Recipient_Email_Addr
Time_Viewed
Viewer_IP
Viewer_Browser_Type
Fig. 7c
AFFILIATE_TABLE
Affiliate_ID
Name
Domain_Name
Authentication_Info
Fig. 7d
VENDOR_TABLE
Vendor_ID
Name
Domain_Name
Authentication_Info

Fig. 8a

PRIOR ART
Hotmail Interface
With MSN Featured Offers

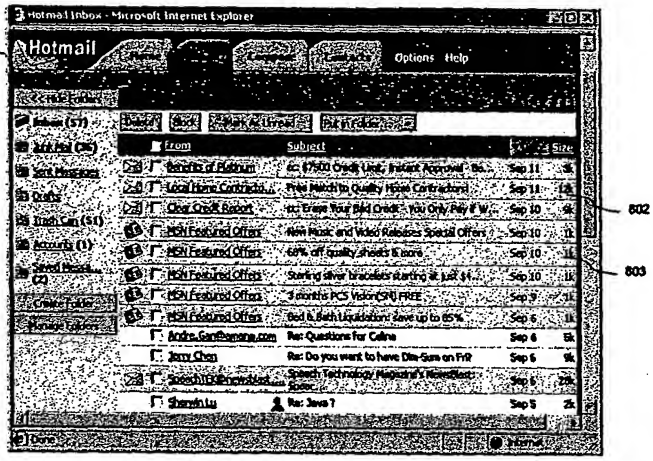


Fig. 8b.

PRIOR ART
Greenmail.com
Static graphical listing

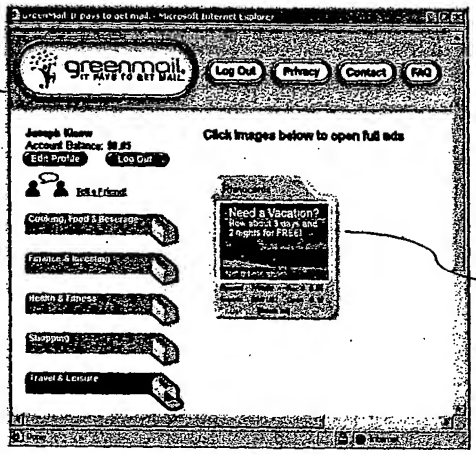


Fig. 8c.

PRIOR ART
Outlook
Static preview window

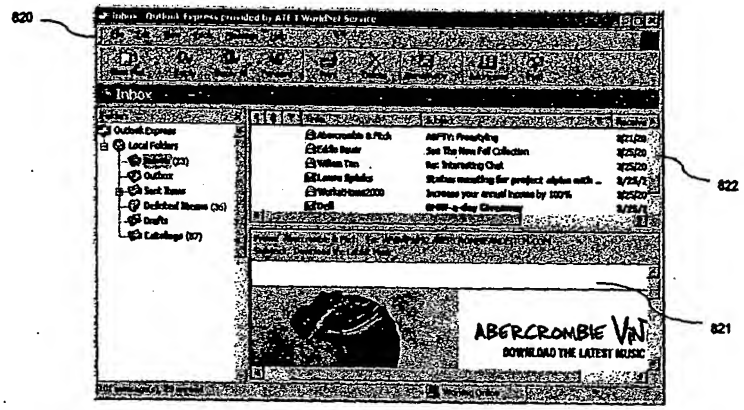
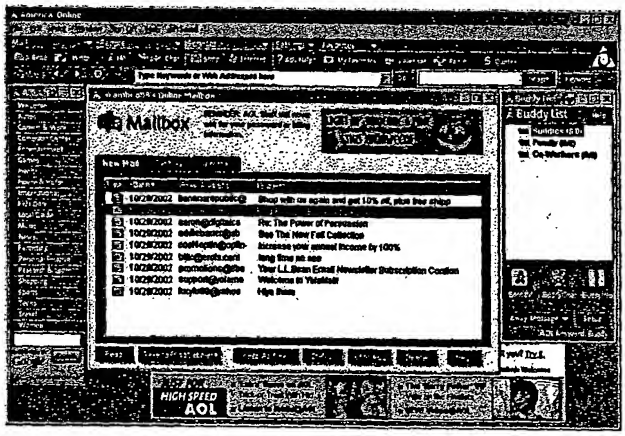


Fig. 9.



Systems and methods for the enhancement of e-mail client user interfac s and e-mail m ssage f rmats.

BACKGROUND.

The present invention relates to the processing of E-mail messages over a telecommunications network. More specifically, the present invention relates to the enhancement of e-mail technology to provide a preview mechanism whereby senders of e-mail are able to provide special customized graphical messages in addition to the e-mail content. In addition, in cases where there is not "teaser" attached to an email, the invention enhances the e-mail client whereby an efficient method to preview and manage messages is presented. The invention provides an efficient viewing mechanism to view the previews without cluttering the listing of the e-mails in a recipients e-mail inbox.

E-mail is regarded as the Internet's first and one of the biggest Killer Apps. In 2000, International Data Corp., estimates that the average daily volume of e-mail around the world was some 10 billion, and will explode to 35 billion by 2005. Companies online and offline are finding that e-mails are a very effective and low-cost method to keep in touch with their customers. The sheer volume of e-mail a recipient receives however requires both a change in email user-interfaces and enhancements in email messaging formats in order to aid the recipient in sorting through his email.

Currently users are forced to guess whether to read an email just from the sender and subject line text. This method has been around since the beginning of e-mail and is often too limited for the recipient to accurately gauge whether he wants to open it. Some emails, especially e-mail promotions are better described with a picture than a 10 word subject line.

Microsoft Outlook **Fig 1.** has what is referred to as a static Preview Window **103.** This window allows users to view portions of messages without having to open a new window for each message selected. Unfortunately, Outlook's preview window suffers from two shortcomings. Firstly, the preview window **103** takes up a large amount of space on the screen and limits the amount of space available to view the listing of email **102.** The present invention described in the next section solves the screen real estate contention issue. Secondly, as shown in **103,** showing a portion of the body of an email often does not help the recipient understand what the email is about especially if the body of the email is large. The recipient is still forced to scroll in the Preview Window to get an idea of what the email contains. This brings the need of an enhancement to the email messaging format, described in the present invention, to allow for a specialized graphical or text "teaser" message that fits in a small space that gives the recipient a better understanding of the content of the email than what a preview window will show, or what a limited text subject line offers.

Finally, in order to perform an action to a message such as deleting or forwarding a message requires the recipient to move his mouse around the application or requires many keystrokes to be performed. For example in Outlook, a user will first click on a message in the message list **102,** which will show a preview in the static preview window **103,** the user would then have to focus his attention to another part of the screen to view the preview, if the recipient chooses to delete the message, the recipient then has to move his mouse to the delete button on the tool bar at the top of the application **104** and then move the mouse back to the listing to click on another message. The act of moving one's focus all around the application distracts the user from his task of quickly scanning through his email listing. The present invention allows for the user to focus his attention on a limited space on the application, thus improving his efficiency.

Current web-based email interfaces **Fig 2.** has even more limitations as there isn't a way to efficiently scan through emails without opening an email entry **202.**

SUMMARY OF THE INVENTION

The present invention describes a method and system for an enhancement to the user interface of e-mail clients to allow an efficient method to preview and act on a list of email. The enhancement involves a mechanism whereby users may view previews of the content of an email and whereby the preview window appear only when activated by the user, therefore not requiring a constant real-estate space on the application window. When deactivated, the preview window will disappear (hide).

It is a further object of the invention where by the preview windows appear adjacent (preferably below) the email entry in the listing, so that the user does not need to focus his attention to another part of the screen.

It is a further object of the invention where by the preview windows are activated by a mechanism such as a mouseover or a click-action on an icon next to the email entry in the listing or a mousover or click-action on the email entry itself. The dynamic preview window will hide upon an action by the user user such as moving the mouse away from the triggering icon or email entry or by a subsequent click on the triggering icon or email entry or some other mouse-action.

In a preferred embodiment, a delay is introduced when a user initially mouses over a triggering icon before showing the preview window to prevent accidental triggering. A delay is also introduced after the user moves his mouse away from the triggering icon or preview window before hiding the preview window to allow the user some freedom in the movement of the mouse.

In a preferred embodiment, the preview window showing routine allows multiple ways to show the preview window – the preview window may be made to slide down from under the message listing or progressively appear on the browser window.

It is a further object of the invention where by options are presented to the user within the dynamic preview window during the triggering of the preview so that the user may take action on the email without having to move the mouse pointer far away from the email entry. Such actions may include deleting, forwarding and replying of an email.

It is a further object of the invention to provide a method to summarize an email's content into a small space provided in the preview window.

It is an object of the invention to also provide a mechanism to enhance an email with a specialized graphical "teaser" which is more descriptive than an email's subject line. The teaser is attached to an email by the sender and will appear in the preview window of the recipient when the preview window is activated.

It is a further object of the invention whereby users may send a "teaser only" email. "Teaser only" e-mails are short graphical or text e-mails that do not have a conventional email body, where the entire content of the e-mail is stored in the teaser and will be shown to the recipient when the preview window is triggered.

It is a further object of the invention to provide a means to enhance existing email clients which may not allow extensive user interface customization. The new user interface and "teaser" message format may be implemented in a separate application or module and hooked into the existing client using an API call or a custom button. Upon the triggering of the hook or button, a

separate application is invoked which will launch a new user interface overlapping the existing one with the enhanced features.

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

FIG 1. shows Microsoft Outlook's implementation of a Preview Window.

FIG 2. shows an example of an existing Web-based email client/system.

FIG 3a. illustrates an example of a preview-enhanced user interface whereby a special "teaser" has been attached to an email, and the preview window showing the teaser has been triggered by the user hovering his mouse on top of an icon that serves as a triggering routine in one embodiment of the present invention.

FIG 3b. illustrates an example of the embodiment of the invention, whereby the preview window is showing a summary of the content of a HTML based email in the window and additional buttons or commands are placed within the window to allow the user to take action on the activated e-mail.

FIG 3c. illustrates the body of the e-mail shown in the preview window of FIG 3b.

FIG 3d. illustrates an example of the preview window rendering a summary of a text based e-mail.

FIG 3e. illustrates an example of a preview enhanced e-mail client where none of the previews are activated.

FIG 4. illustrates an embodiment of the present invention whereby a new interface is "hooked" onto an existing client's interface using an API or button "call-out routine".

FIG 5a. illustrates a specific embodiment of the present invention where by the special "teaser" is viewed on a web-based email system.

FIG 5b. illustrates a specific embodiment of the present invention where by the additional buttons/actions are available in the preview window.

FIG 6. illustrates the part of the present invention whereby a user may attach a special "teaser" to the body of an e-mail.

FIG 7a. shows a specific embodiment of the new preview-enhanced e-mail format in which the preview instructions are included in the header of the e-mail.

FIG 7b. shows a specific embodiment of the new preview-enhanced e-mail format in which the preview instructions are included as an attachment in the body of the e-mail.

FIG 8. shows a specific embodiment of the present invention of generating a listing of preview-able emails.

FIG 9. shows a specific embodiment of the present invention of the e-mail client activating the preview and showing it to the user.

DESCRIPTION OF THE SPECIFIC EMBODIMENTS

It is important to note that this invention describes both a method to develop an enhanced e-mail user interface as well as a method to enhance the message format of e-mail to allow for a the attachment of a specialized graphical "teaser" which will appear dynamically when activated by the recipient scanning through his e-mail inbox.

It is also hereby established that when the preview window is referred to, the document is referring to the physical window, dynamically activated (shown/hidden) by the user's action which may be displaying a summary or preview of an e-mail. When referring to a "teaser", the document is referring to a specialized graphical (or text) based attachment that will appear in the preview window in-lieu of displaying a summary of the content of the e-mail.

E-mail Preview

Fig 3a, 3b and **3d** show several embodiments of the present invention where the preview window is activated. **Fig 3e** shows an embodiment of the present invention where the none of the preview windows are activated. **Fig 3a** shows a preview window where a "teaser" is shown, **Fig 3b**, shows a preview window where a summary of an HTML e-mail is shown and **Fig 3d** shows a preview window where a summary of a text-based e-mail is shown. The specifics of the e-mail message format enhancement of the "teaser" is covered in a later portion of this document.

Fig 3a. shows an example of a standalone e-mail client (non web-based) user interface **300**, that has a preview activated **303**. The user has placed his mouse cursor over the triggering icon **301**, of a listing of an e-mail **302**, that he is interested in. Upon triggering the preview, the preview content appears to slide out from under the listing entry **302**, and remain open until either the user moves his mouse away from both the preview window **303**, and the triggering icon **301**.

The preview window **303**, may also appear to show on the screen using different visual techniques, such as slide out from under the listing, pop-out, without a sliding effect, and rest adjacent to the bottom of the listing **302**.

Also in order to prevent accidental triggering, in a specific embodiment of the invention, delays are introduced in the preview triggering mechanism **301** to ensure that the user has his mouse over the preview trigger a specific period of time before the preview is actually triggered and shown to the user. To allow the user some leeway, a delay is also introduced before the preview is hidden (**Fig 3e**) after the user has moved his mouse away from the preview trigger **301** or preview window **303**.

Fig 3b. shows an embodiment of the present invention where actions/buttons **320** are placed within the preview window and a summary of the content of an e-mail **321** is shown in the preview window. These pluralities of actions may include the ability to delete the e-mail, forward the e-mail and reply to the sender of the e-mail. The actions may further include the ability to "zoom" in and out magnifying the area of the content of the e-mail summarized within the preview window. The effect of rendering the summary of the body of an e-mail (**341** in **Fig 3c**) and the ability to magnify the area of the content can be achieved using off-the-shelf browser components that are pluggable into applications. One such component is the browser or Internet Explorer ActiveX module that supports HTML rendering.

Fig 5a. shows an example of a Web-based e-mail provider's user interface **500**, that has been preview-enabled and a preview window **502** showing a "teaser" is activated when the user has his mouse over the triggering icon **501**. **Fig 5b.** shows a preview window **520** showing with added actions/buttons that allow the user to easily take action on an email.

Enhancing an existing e-mail client.

Certain e-mail clients such as Microsoft Outlook provide standard ways to customize the application, either by adding new buttons or by interfacing with the application using APIs (Application Programming Interfaces). However, most e-mail clients do not allow for widespread customization, especially the ability to add preview triggers and windows to the user-interface. There for the present invention also describes adding a new user interface to the existing client in cases where the changes needed to be performed are not supported by the existing client.

One method described in the invention is a way to "hook" onto an e-mail client by using methods familiar to those skilled in the art such as adding a button or programming to an API to call an external module or application that will create a customized user interface that will function as described in the invention. This method leverages the basic functionality of the existing client such as address-books, calendaring, POP/IMAP e-mail retrieving capability while completely replacing the e-mail listing interface.

Fig 4. demonstrates an embodiment of the invention where an enhanced user interface **402** is integrated with an existing email client **400**, using API interfaces exposed by the client. The new interface may appear all the time, or only when a button **401** is clicked to enable the interface. One method to achieve this integration is using Microsoft Outlook's "Automation" facilities whereby applications may be developed to customize Microsoft Outlook. The tools include the Outlook Object Model, Collaboration Data Objects or using Extended MAPI. For example, using the Outlook Object Model, a button is added into Outlook, and using Extended MAPI, access the email entries stored by Outlook to generate the enhanced user interface. Other methods familiar to those skilled in the arts may also be used to achieve this integration.

Enhancing Email Messaging Format with "Teasers"

The invention so far describes a method to easily manage e-mail in a new kind of user interface. However, an enhancement to e-mail is needed to bring e-mail to the "next level". Up till now, the "face" of e-mail is limited to a sender and text subject-line. The invention describes a method to add graphical elements to the "face" of e-mail, whereby senders can attach "teaser" graphics, colorful text (not limited by subject line word count limitations), multi-media, animation, audio and video which will dynamically appear when the recipient triggers a mechanism to view the "teaser" directly from the inbox without needed to first open the message as shown in **Fig 2a.**

Fig 6. shows a part of an embodiment of the present invention where the sender may attach specialized "teasers". When creating a new e-mail message **600**, the sender may be given an option to "Add a Teaser" **601,** where when selected, a dialog box appears which allow the sender to attach a text **602**, image **603**, audio/video recording **604** or other data files **605** to be sent as the e-mail's "teaser". The sender may also elect to send a "teaser only" **606** e-mail. A "teaser only" e-mail is an e-mail that does not have a body, much like a post card that does not contain an envelope. The recipient need only to trigger the "teaser" to view the contents of the e-mail. Uses for "teaser only" messages may include but not limited to simple jokes; situation updates ("I'm going to be working late today"), funny pictures and simple greeting cards.

Fig 7a. shows a simplified specific embodiment of the E-mail preview format **700** where the "teaser" instructions **702** are included in the e-mail message's headers **701.** The "teaser" instructions **702,** may be included as a user-defined header, headers beginning with an "X-". An example of a header of a preview-enhanced e-mail using user-defined headers is given below:

```
From: "Jane Sender" <jane@sender.com>
To: jwebb@yahoo.com
Bcc:
Subject: Sale on all leather jackets
Date: Sat, 26 Sep 2002 09:20:17 +0000
Mime-Version: 1.0
Content-Type: text/html
X-Teaser: URL=http://teaserserver.com/getteaser?teaser_code=
  A3123G11&email=jwebb@yahoo.com|TYPE=Image/JPEG|
  DIMENSION=480x200|PREVIEW_SCRIPT_VERSION=2.05
```

The "teaser" instructions are included in the user-defined header "X-Teaser:". The content of the teaser may either be included as part of the e-mail or be resident and referenced on an internet connected server. Should the content of the "teaser" be included as part of the e-mail **704**, the e-mail may be sent as a "multipart/related" MIME encoded e-mail where the "teaser" content be labeled as "Content-Type: application/teaser-content" with the "Content-ID" referenced by the "teaser" instructions.

Fig 7b shows an alternative embodiment of the invention, in which the "teaser" instructions are attached as a MIME attachment to the e-mail message, an example of which is given below:

```
From: "Jane Sender" <jane@sender.com>
To: jwebb@yahoo.com
Subject: Sale on all leather jackets
Date: Sat, 26 Oct 2002 09:20:17 +0000
MIME-Version: 1.0
Content-Type: multipart/mixed;
      boundary="----=_NextPart_000_0036_01C26FEC.EE6C38B0"

This is a multi-part message in MIME format.

------=_NextPart_000_0036_01C26FEC.EE6C38B0
Content-Type: text/html;
Content-Transfer-Encoding: quoted-printable

<html>
<STRONG>
Hello Joe,
</STRONG><BR>
We are having a blowout leather jacket sale this weekend!<BR><BR>

<A href="http://sendersite.com/sale/">Click here</A> for more
information.<BR><BR>

See you soon!<BR>
Regards,<BR>
Jane Sender
</html>

------=_NextPart_000_0036_01C26FEC.EE6C38B0
Content-Type: application/x-teaser;
Content-Transfer-Encoding: quoted-printable

URL: http://teaserserver.com/getteaser?teaser_code=A3123G11&email=
  jwebb@yahoo.com
TYPE: Image/JPEG
DIMENSION: 480x200
PREVIEW_SCRIPT_VERSION: 2.05

------=_NextPart_000_0036_01C26FEC.EE6C38B0--
```

The "teaser" instructions are included as an attachment(Multipart/Mixed) of type "application/x-teaser". The preview instructions may alternatively be encoded in an XML envelope to allow for easier manipulation by XML enabled parsers.

As in the previous format, the content of the teaser may either be included as part of the e-mail **714** or be resident and referenced on an internet connected server. Should the content of the "teaser" be included as part of the e-mail **704**, the e-mail may be sent as a "multipart/related" MIME encoded e-mail where the "teaser" content be labeled as "Content-Type: application/teaser-content" with the "Content-ID" referenced by the "teaser" instructions.

Other methods of encoding the "teaser" instructions and content into the e-mail may be used that are familiar to those skilled in the art.

Process generating the listing of Email.

Fig. 8 illustrates the process by which the preview enhanced user interface generates the listing of e-mails **300.** The process begins when a user launches the e-mail client **801.**

When the user interface generates the listing of e-mails, the application parses the e-mail datastore **802.** The e-mail may either have been retrieved and stored locally or in a remote server such as an IMAP or POP server. While parsing the e-mail for information such as sender's name, subject line, date and other information, each email is parsed to check if the e-mail contains "teaser" instructions **803.**

If the e-mail contains "teaser" instructions, the instructions are interpreted **805** and the "teaser" is prepared for triggering at a later time. The operations involve may include, fetching the "teaser" content from a remote server or extracting the "teaser" content from the e-mail. This operation is especially relevant to the case where the interface is a web-based e-mail interface as shown in **Fig 2c.** as the complete interface may need to be generated all at once (unlike that of a standalone application like Outlook)

If the e-mail does not contain "teaser" instructions, then in the case of a web-based e-mail interface, the "summarizer" routine is called to generate a preview version of the e-mail content that fits into the space of a preview window.

Once the user interface is initialized with the appropriate preview window triggers **806,** the listing of e-mail is displayed to the user **808.**

Activating the Preview Window

Fig. 9 illustrates the process in a preferred embodiment of the invention where the user activates the preview window trigger **301** in an e-mail listing **302.** After the list of e-mails has been displayed to the user **808,** the user moves his mouse over a triggering icon and activates the preview trigger **901.** This will cause the preview window to begin initializing **902.**

If the e-mail contains "teaser" instructions, the instructions are interpreted **904** and initialized. The operations involve may include, fetching the "teaser" content from a remote server or extracting the "teaser" content from the e-mail. This operation may have been executed earlier if it is a web-based email client. The operations may further include the initialization routines of any "teaser" content such as Audio or Video plugins, Java Applets and any other applications that may be supported by the "teaser".

If the e-mail does not contain "teaser" instructions, then in the case of a web-based e-mail interface, the "summarizer" routine is called to generate a preview version of the e-mail content that fits into the space of a preview window. The user may optionally zoom in and out enlarging or making smaller the content within the preview window.

After the user has seen the preview, the user may de-activate the preview window by moving the mouse away from the preview window trigger **608**. This will trigger a "onMouseOut" routine that will deactivate **609** and hide **610** the preview window.

Conclusion

In the foregoing specification, the invention has been described with reference to specific exemplary embodiments thereof. Other embodiments will be apparent to those of ordinary skill in the art.

For example, the preview window mechanism may be integrated into a proprietary e-mail interface such as AOL.

The preview window mechanism may also be integrated into e-mail applications designed for mobile devices such as cellular phones and PDAs.

The invention where the "teaser" is concerned also covers cases where the message is not technically an email message but a message that appears within an aggregate of messages. One such example is where marketing promotions are placed directly within a web-mail user's inbox without being formatted to standard email specifications and without being routed through standard email systems.

The "teaser" enhancement to e-mail may be applied to other protocols and messaging applications, such as Instant Messaging.

Fig. 1

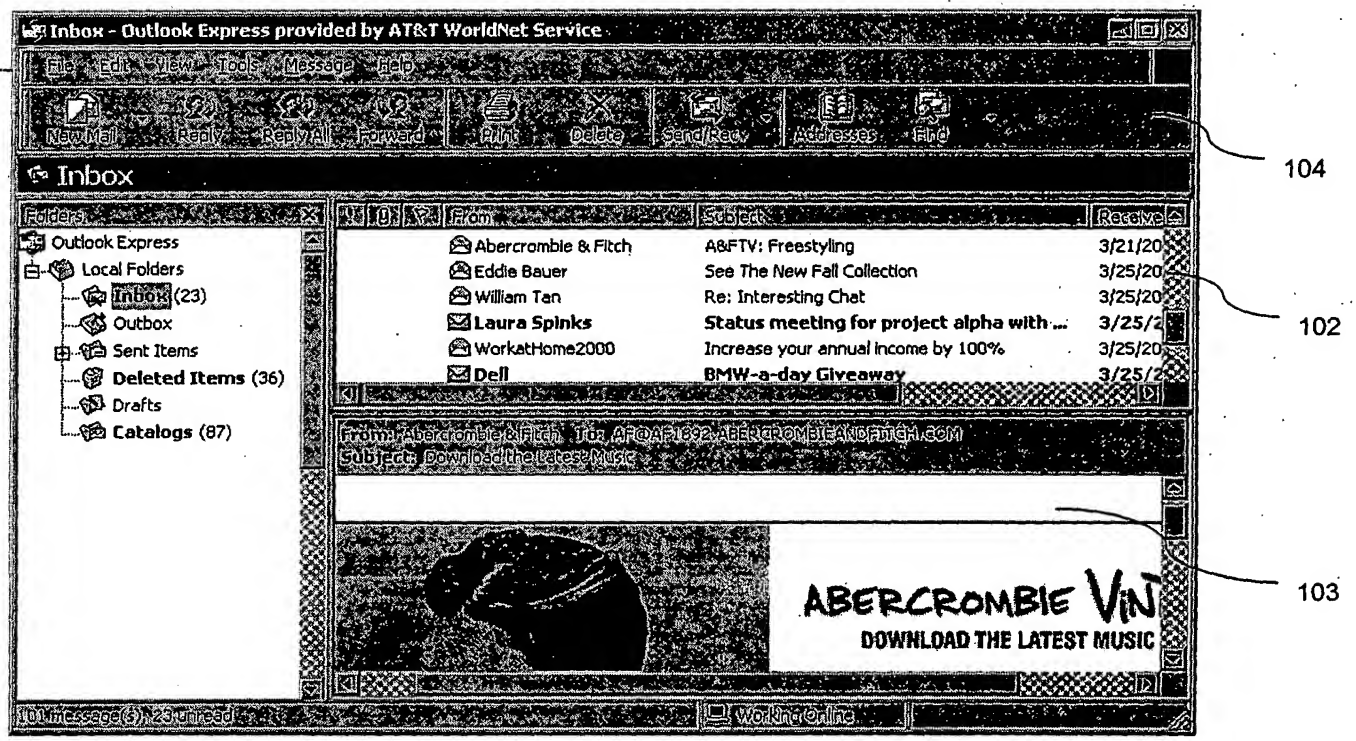
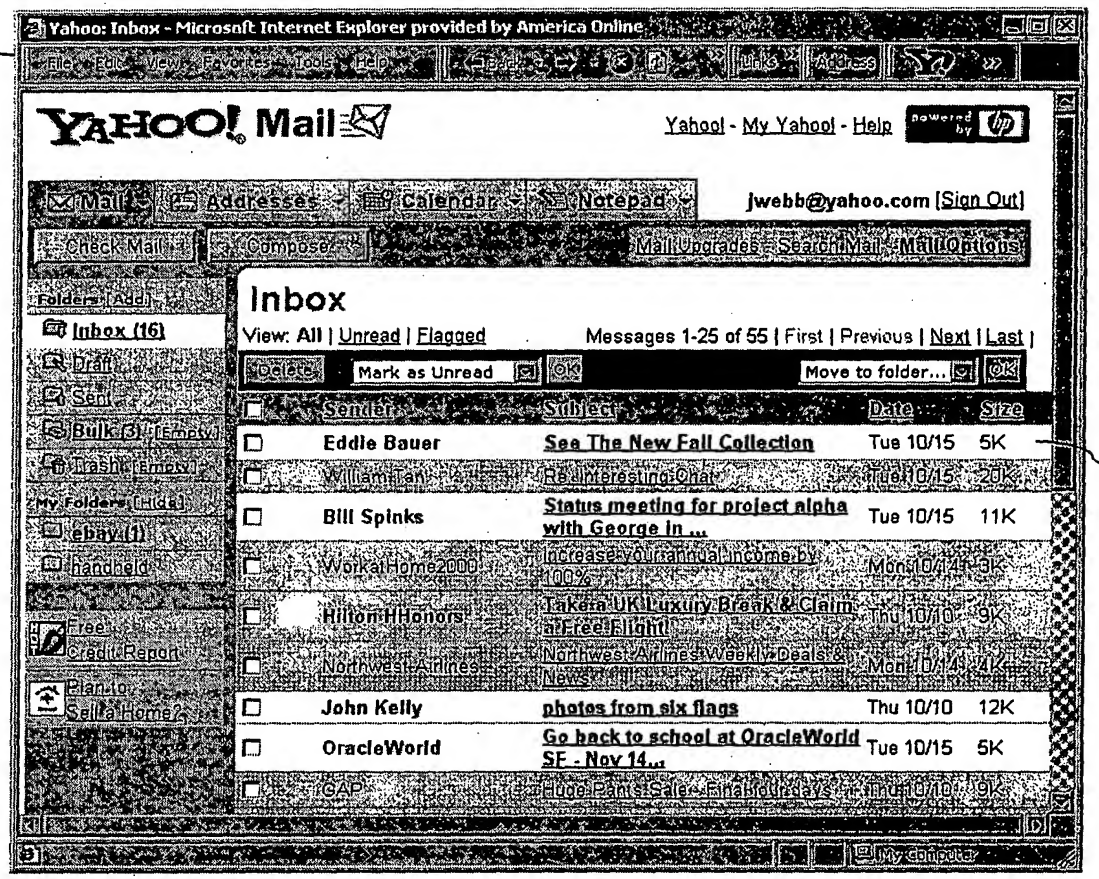


Fig. 2



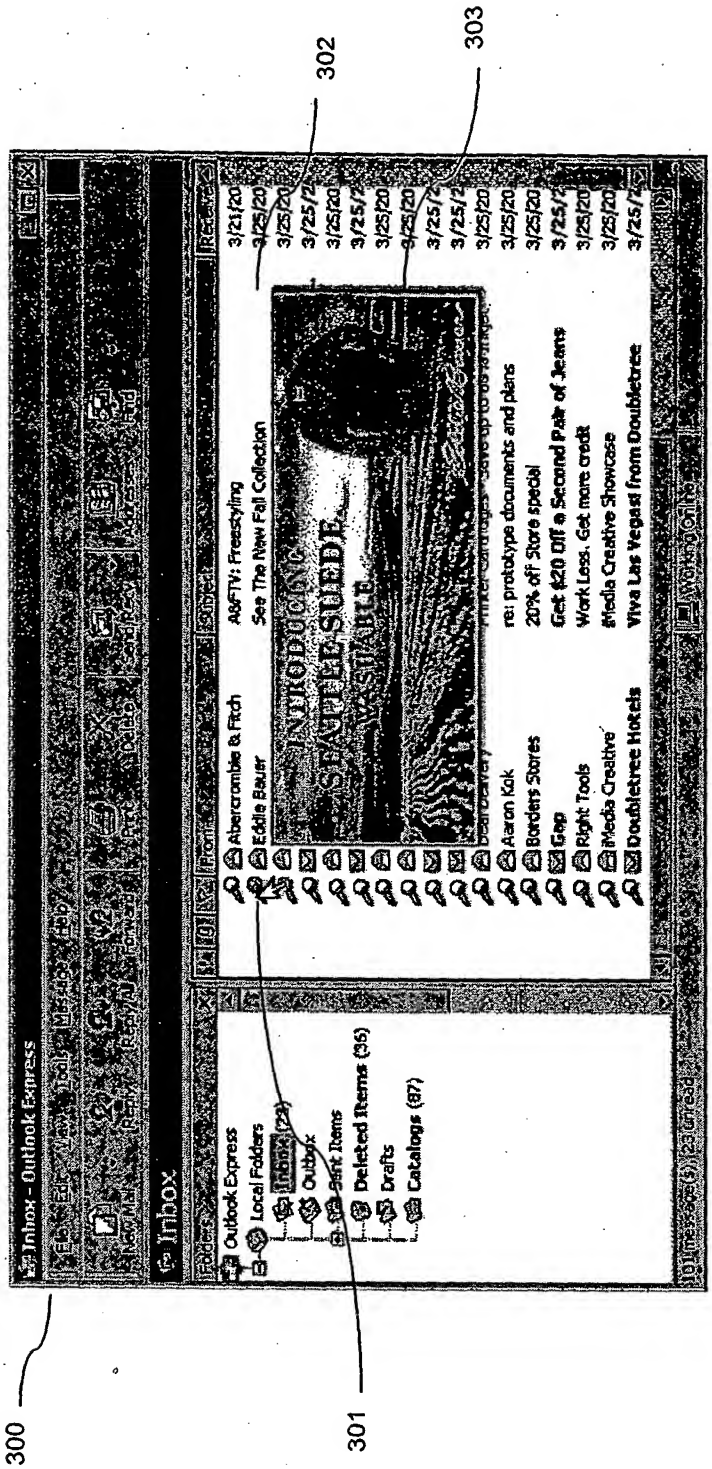
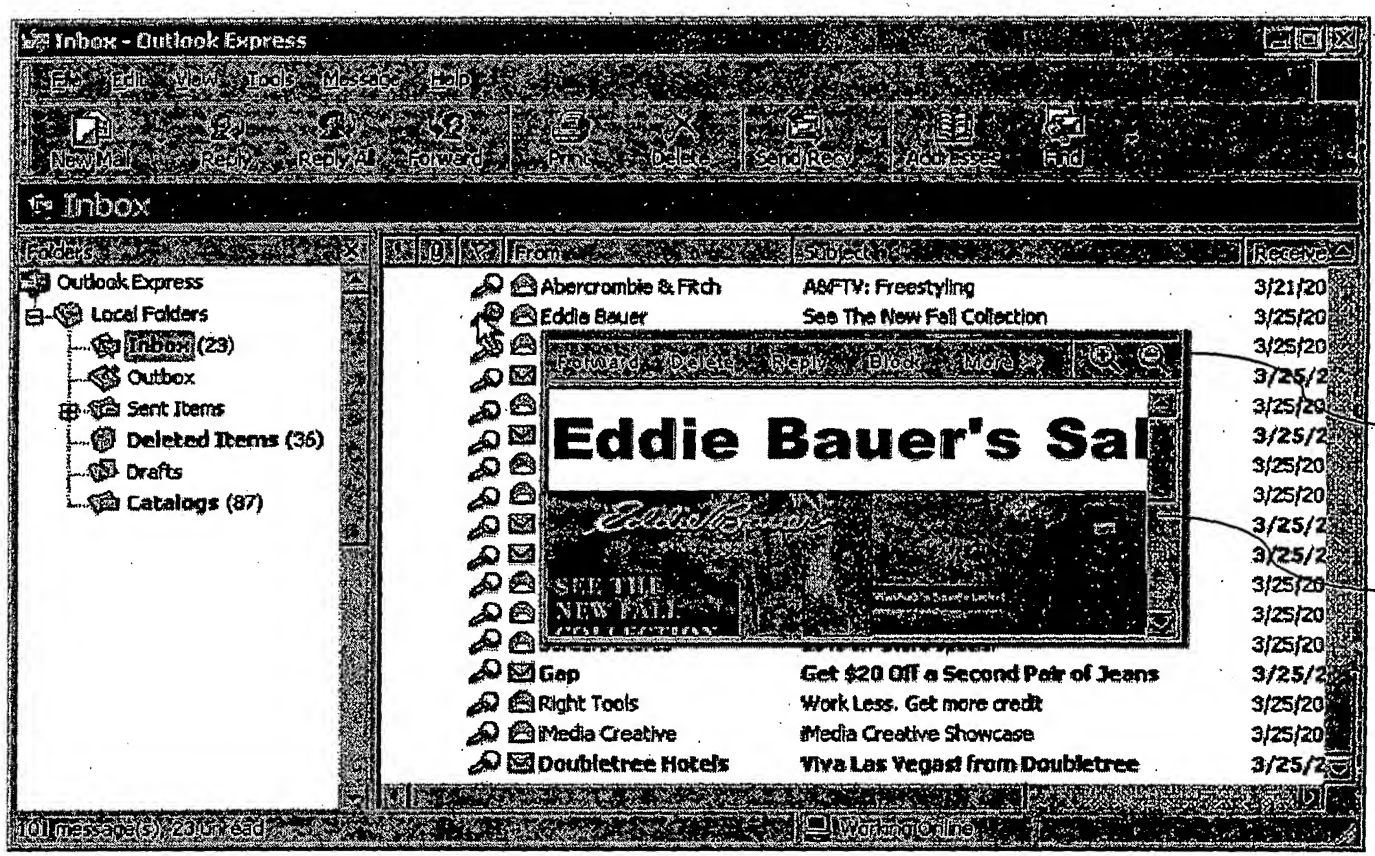


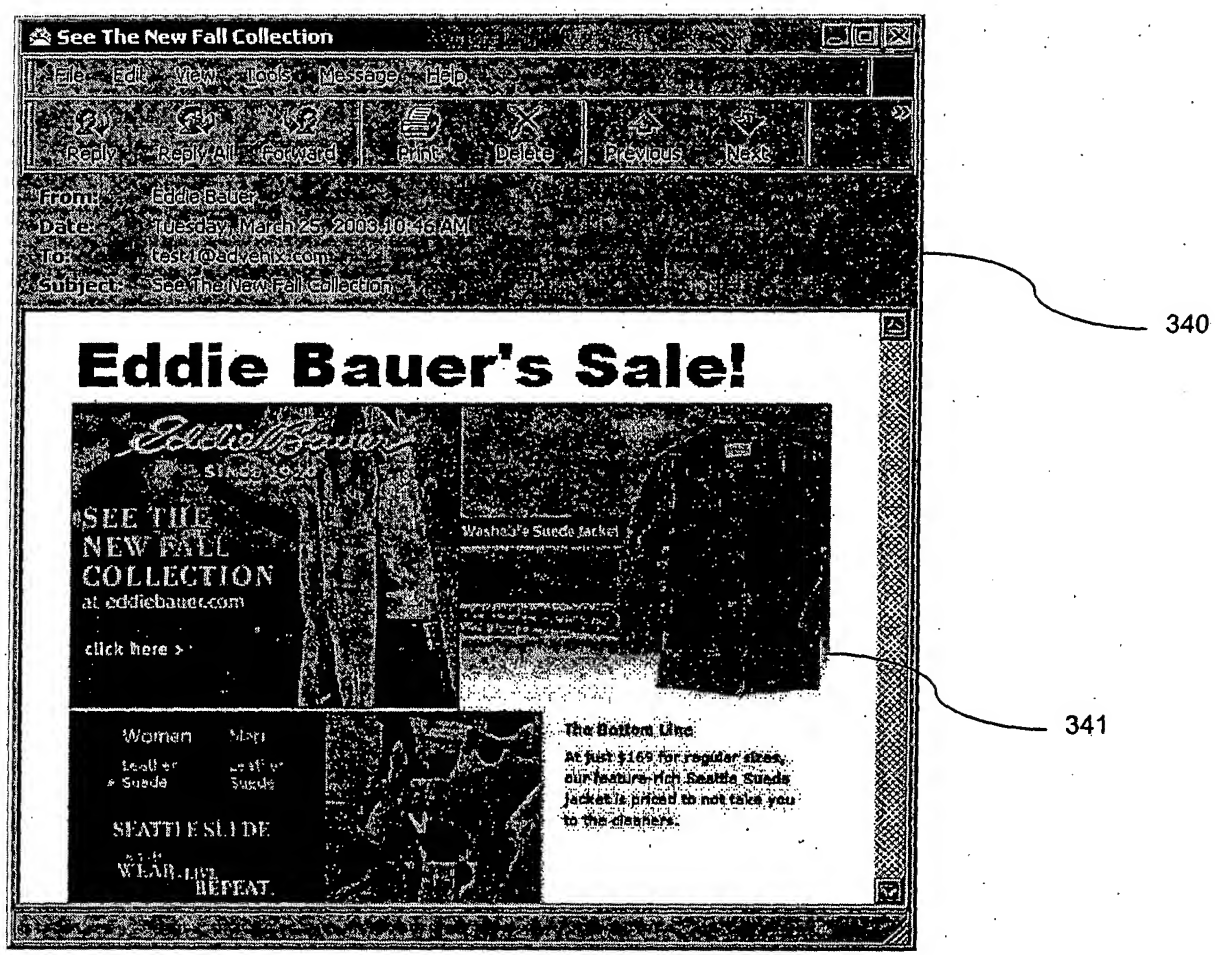
Fig. 3a

Fig. 3b



80

Fig. 3c



340

341

Fig. 3d

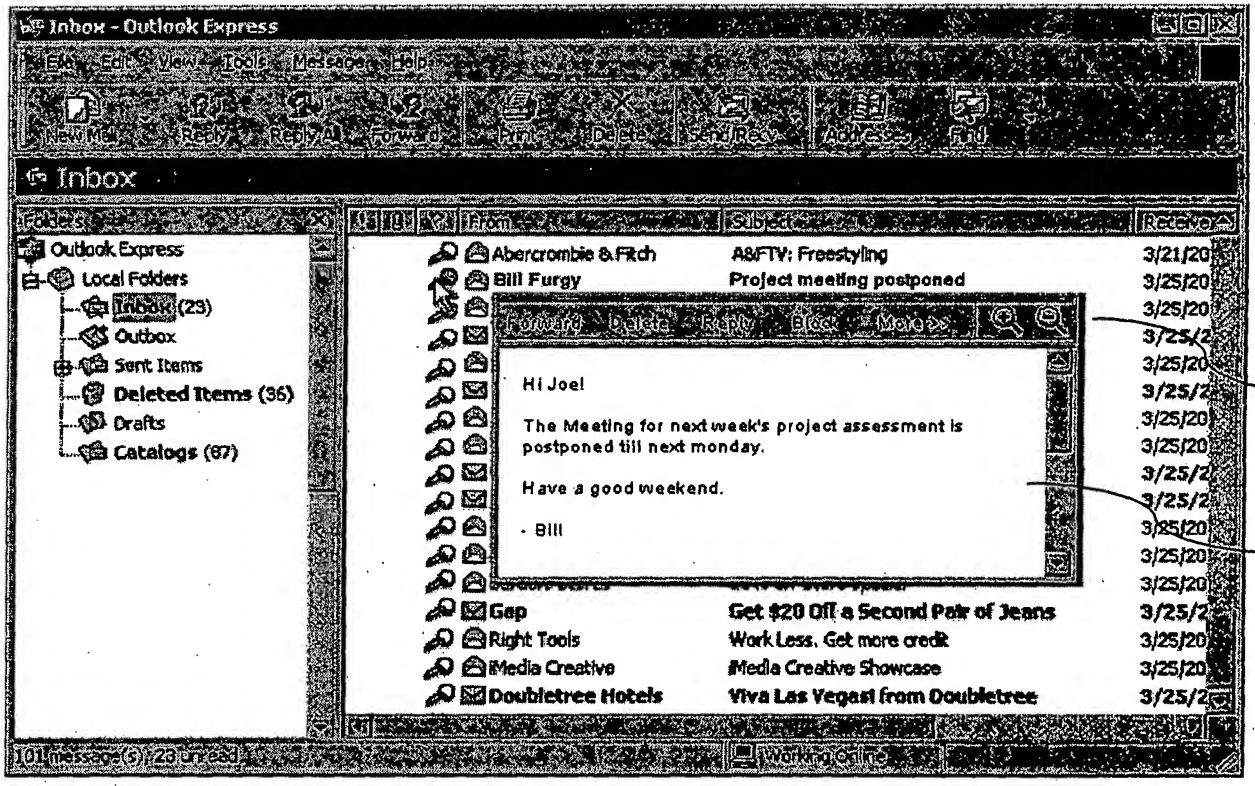
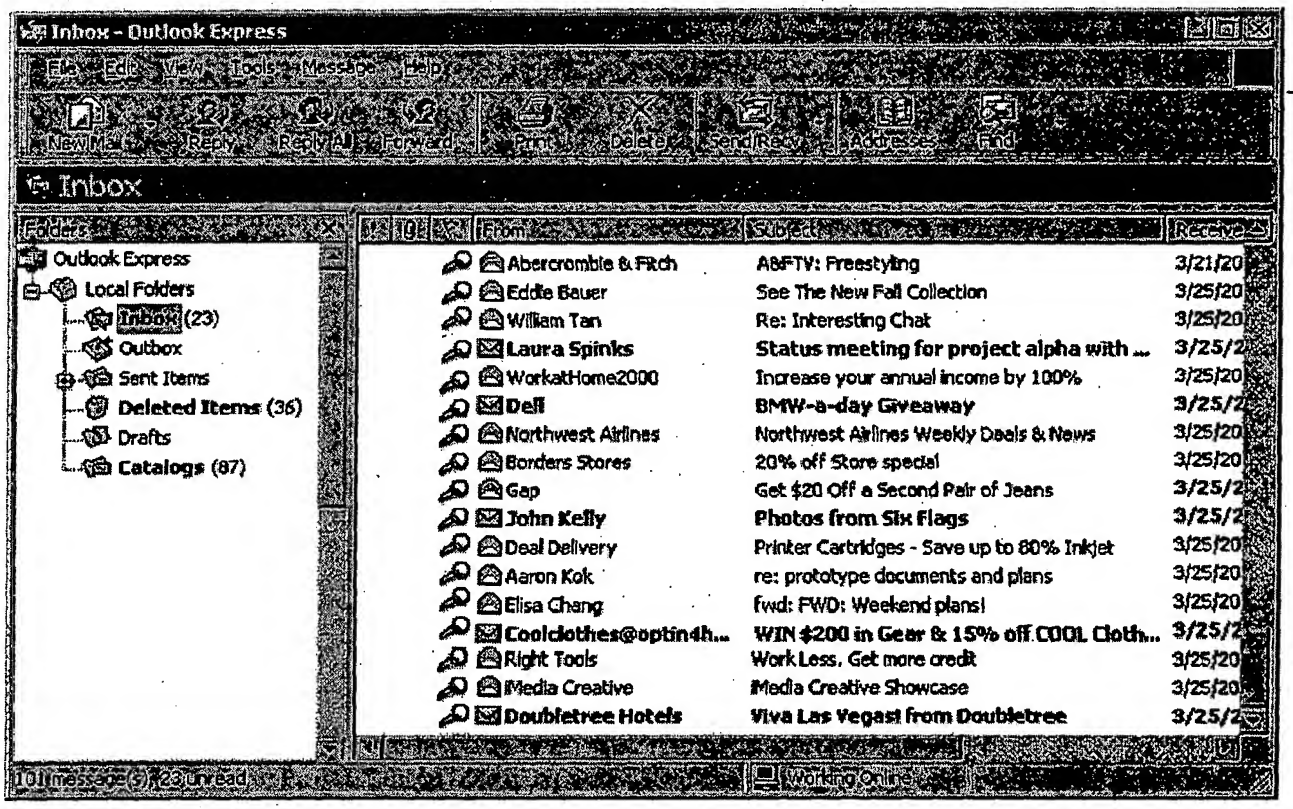


Fig. 3e



370

Fig. 4

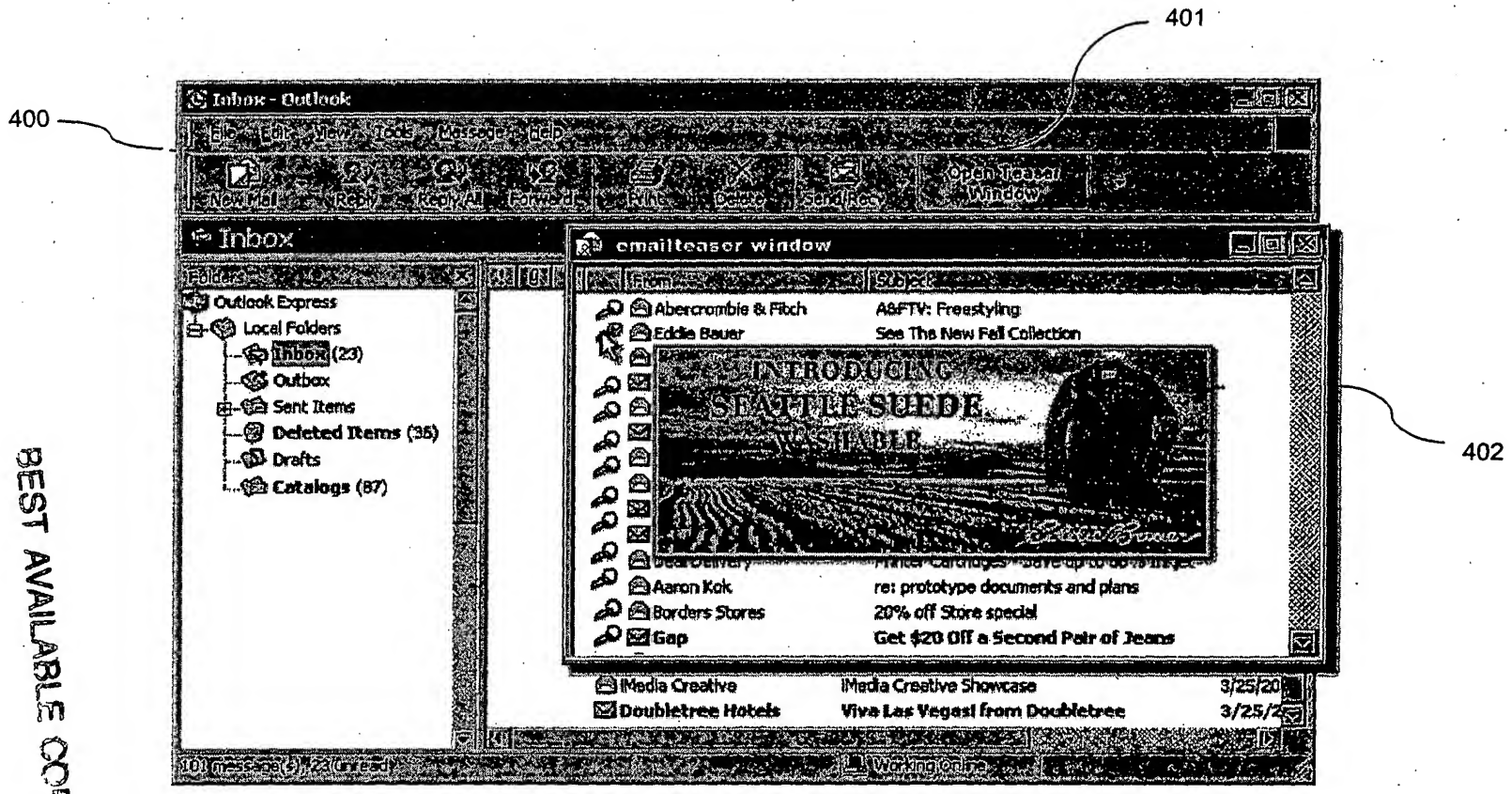


Fig. 5a

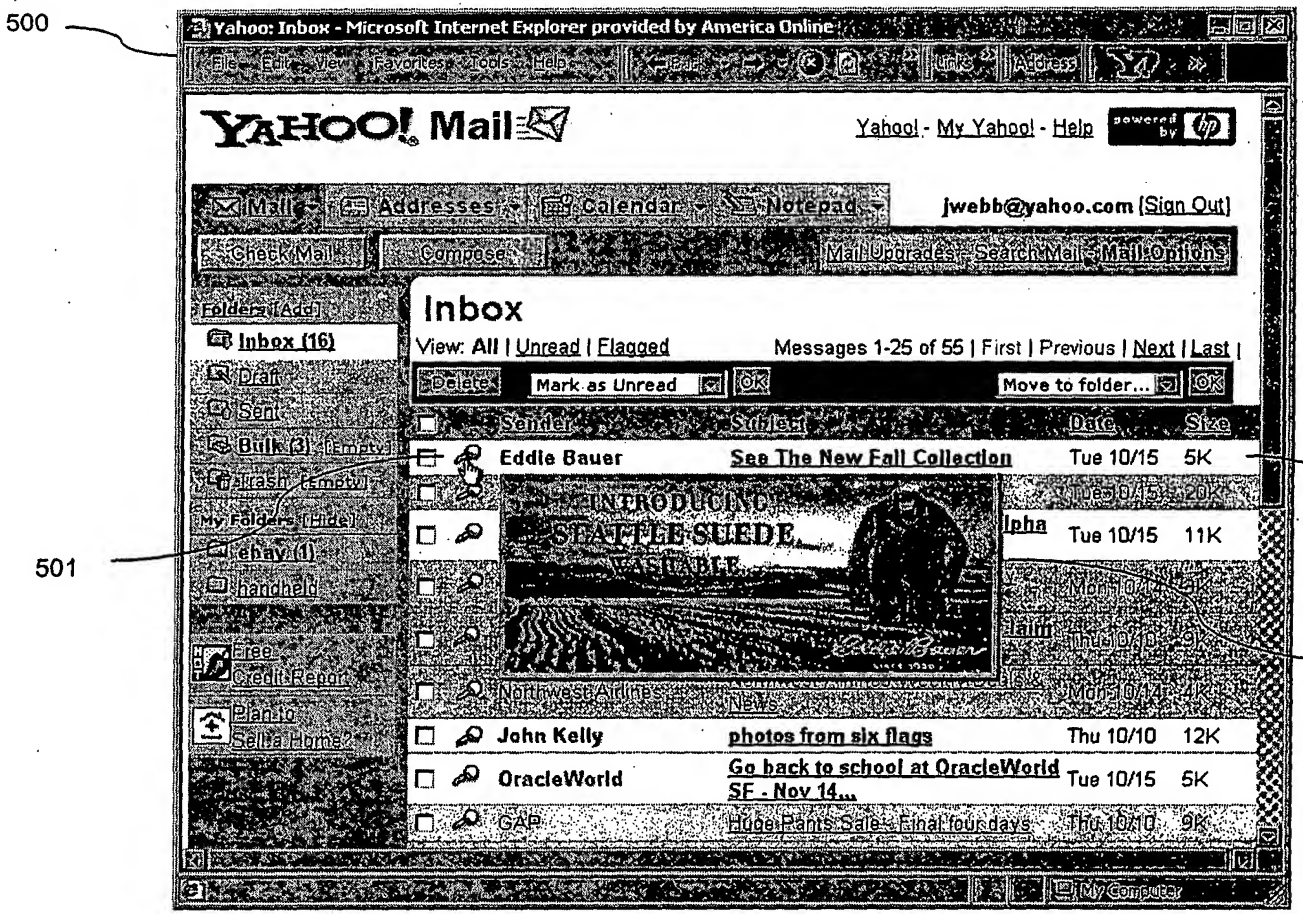
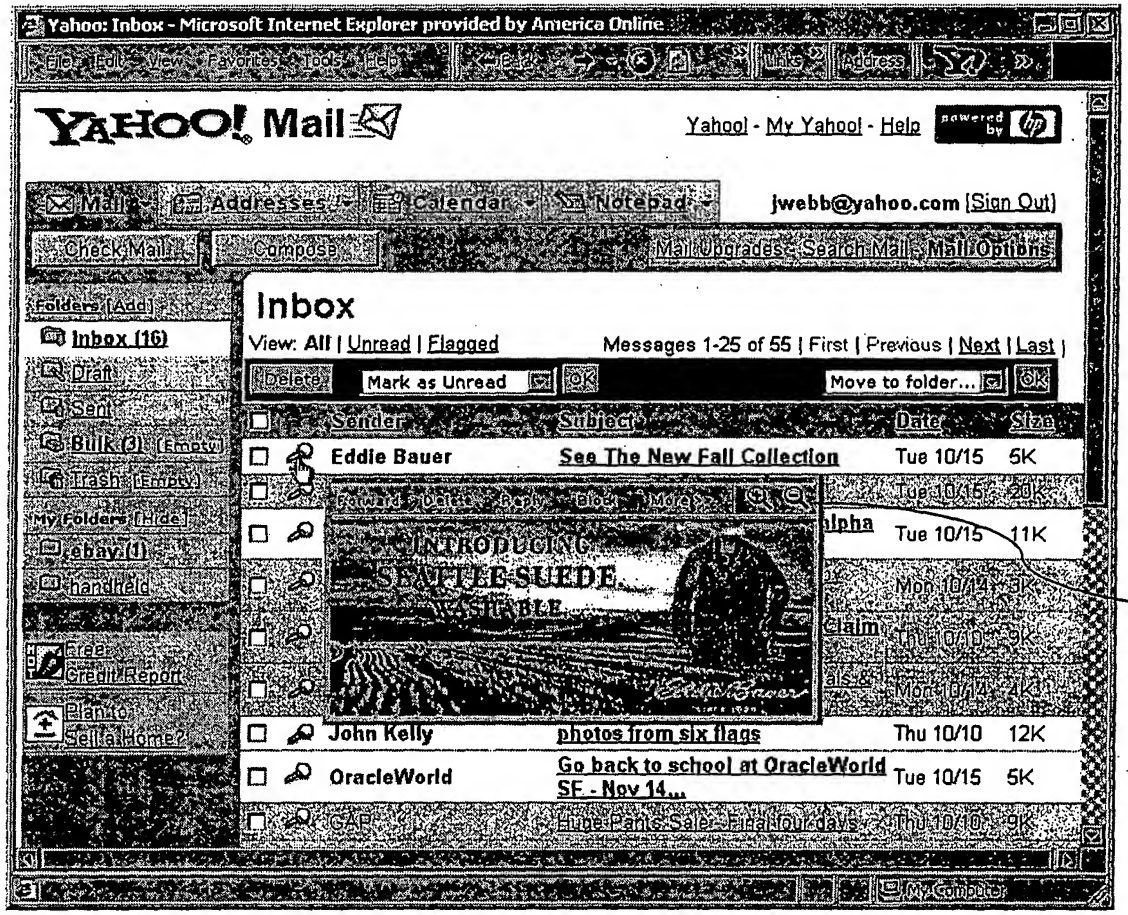


Fig. 5b



520

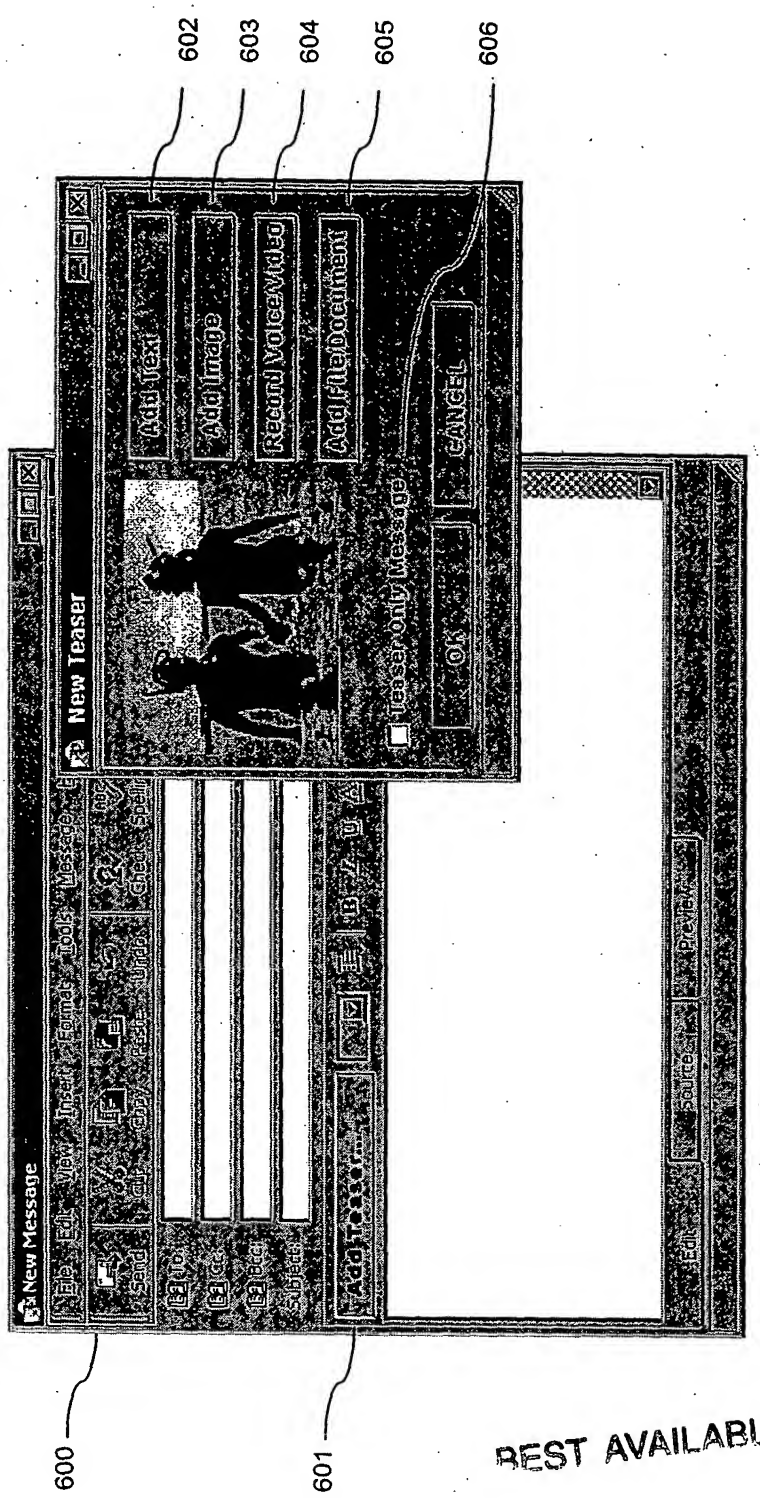


Fig. 6

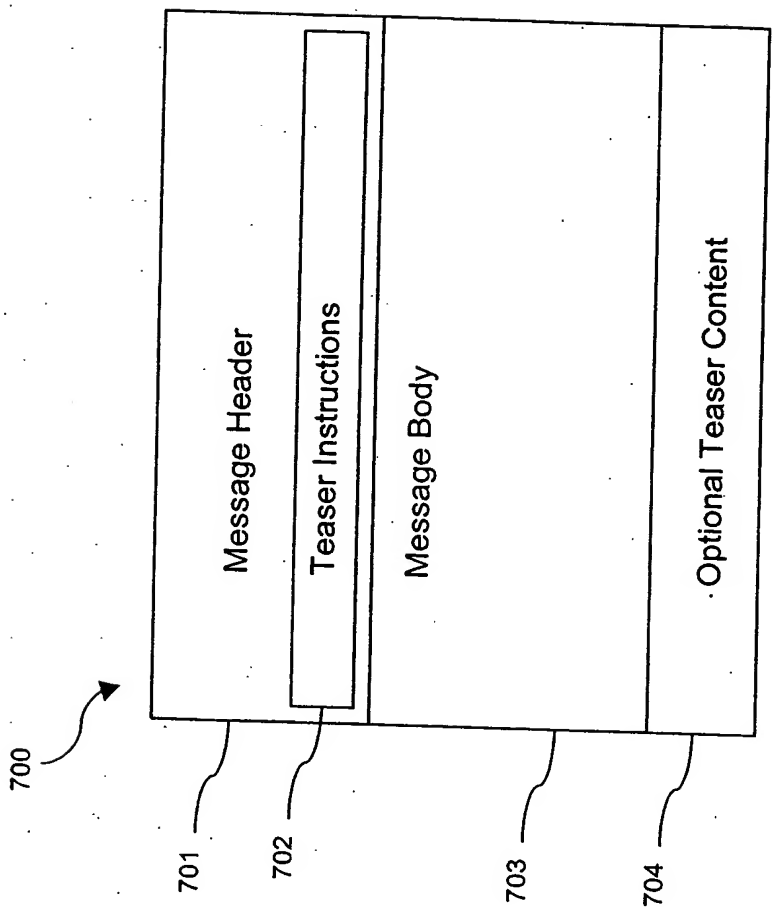
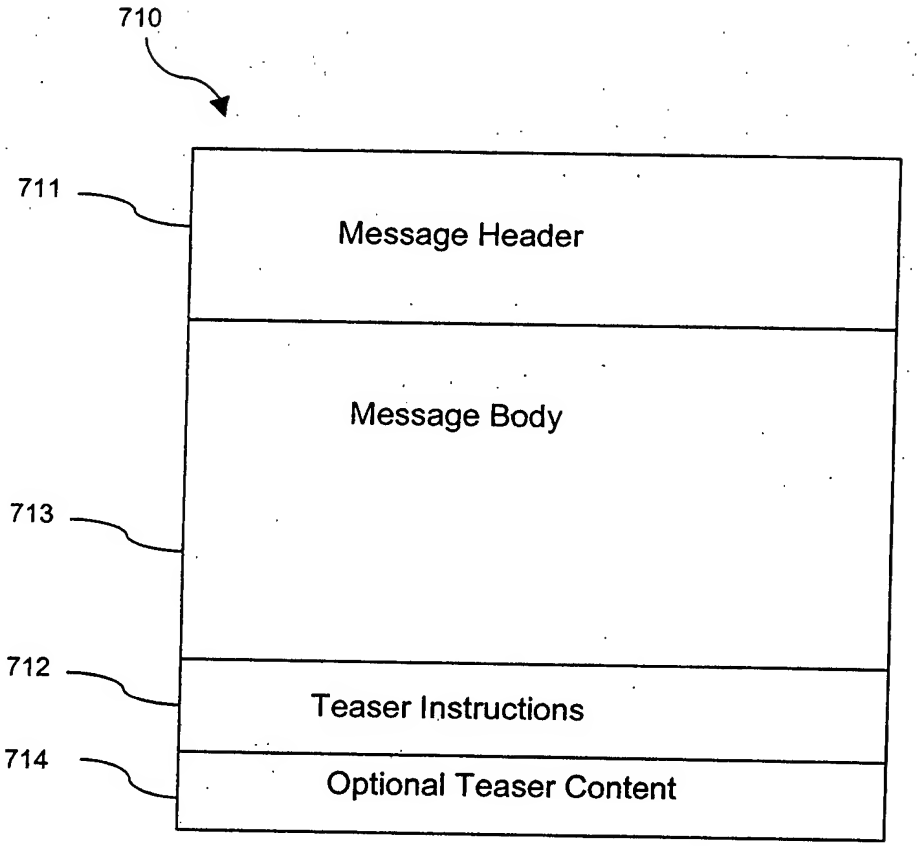

700
Message Header
Teaser Instructions
Message Body
Optional Teaser Content
701
702
703
704

Fig. 7a

Fig. 7b


710
711
Message Header
Message Body
713
712
Teaser Instructions
714
Optional Teaser Content

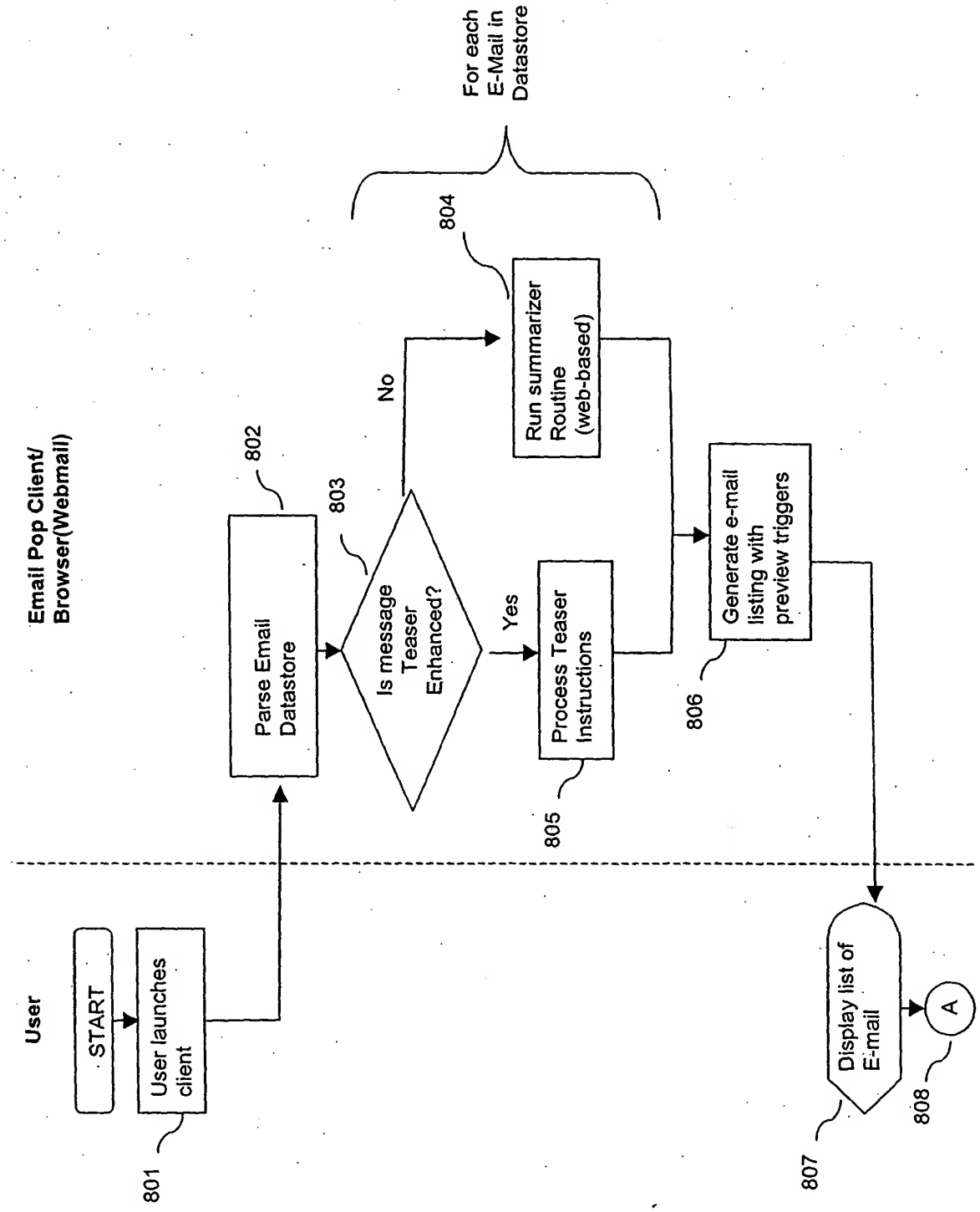
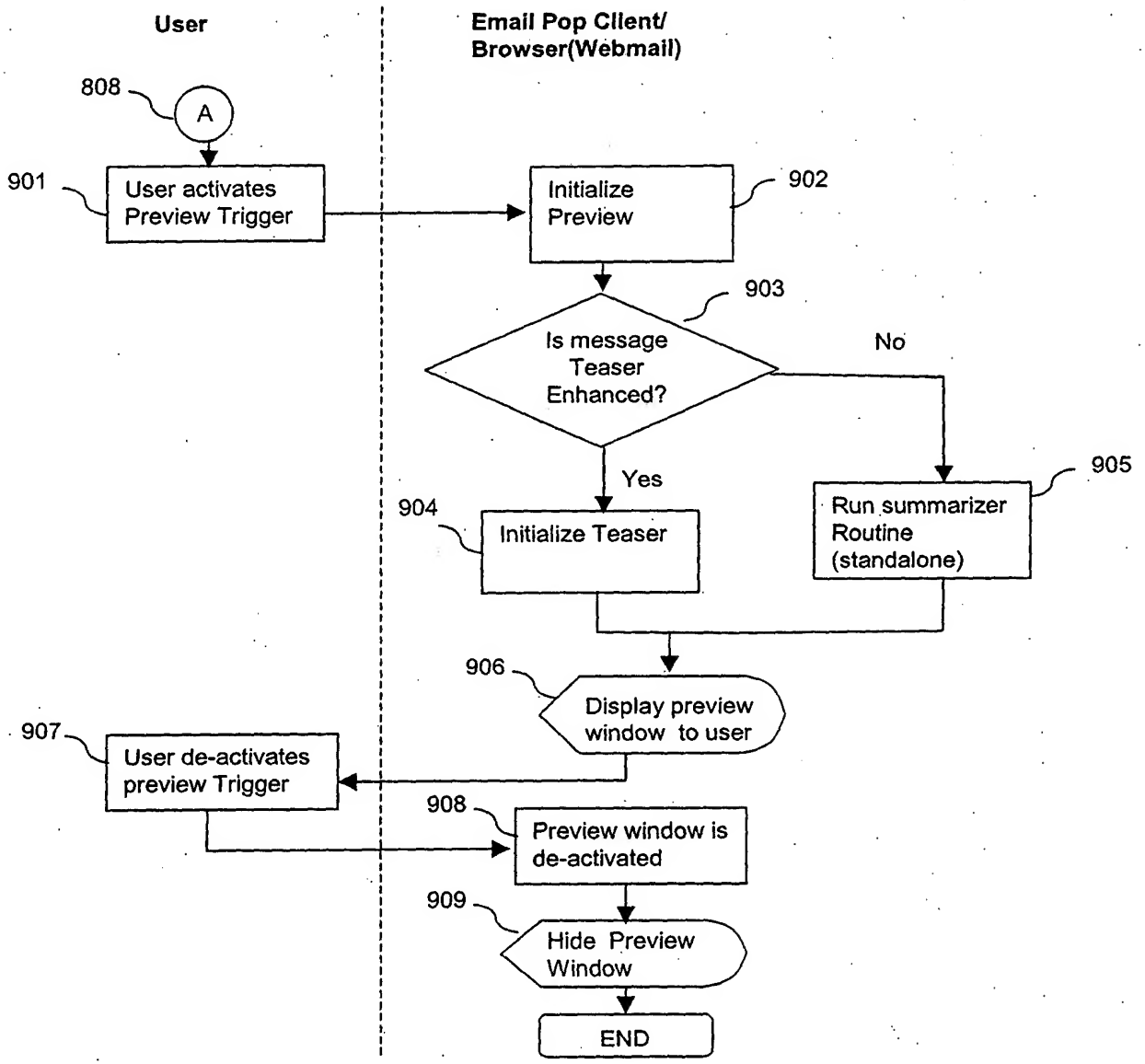

User
Email Pop Client/
Browser(Webmail)
START
User launches client
801
Parse Email Datastore
802
Is message Teaser Enhanced?
803
No
Yes
For each E-Mail in Datastore
804
Run summarizer Routine (web-based)
Process Teaser Instructions
805
Generate e-mail listing with preview triggers
806
Display list of E-mail
807
A
808

Fig. 8

Fig. 9


User
Email Pop Client/
Browser(Webmail)
808
A
901
User activates
Preview Trigger
902
Initialize
Preview
903
Is message
Teaser
Enhanced?
No
Yes
904
Initialize Teaser
905
Run summarizer
Routine
(standalone)
906
Display preview
window to user
907
User de-activates
preview Trigger
908
Preview window is
de-activated
909
Hide Preview
Window
END

Systems and methods f r online direct marketing and advertising on registration based websites and web-based email systems.

BACKGROUND.

Direct mail and coupons is a huge business. It is not only effective but also receivers of these promotions find value in it. It allows merchants a chance to reach new customers and consumer-packaged goods manufacturers to introduce or promote products to a wide audience. The receivers have a chance to save money and an incentive to try out new products.

The Internet looked poised to bring a whole new level of effectiveness and personalization to direct mail and coupons. Until now the methods introduced on the Internet include direct offers via email and coupon portals. Unfortunately both these methods have proven ineffective.

Email has proven to be an inadequate medium for online promotions because of its inherent "free" nature. In the offline world of postal direct mail, it costs promoters to send offers to households. The promoter has to pay for printing and mailing costs which would range anywhere from 40 cents to a few dollars for each household mailed, therefore, even if the promoter could obtain the address of every household in the US it would not be cost effective to send them to every single household. But, because sending emails are free, promoters have no barrier to send an email to every email address they can get their hands on - leading to the practice of sending massive amounts of untargeted unsolicited email - Spam. Not every promoter participates in spamming, but because of the rampant practice of Spam, users have become numb to offers received through email - whether they be targeted or not - thus crippling a potentially effective channel for direct marketing and promotions.

Coupon portals such as MyCoupons.com, Valpak.com and Coolsavings.com have been set up to serve coupons of merchants and consumer goods manufacturers to Internet users. Unfortunately, most users do not actively search for coupons and offers; they merely take up the offer when it is presented to them, either through coupons received in the mail or in the Sunday newspapers. The majority of the users who frequent coupon portals are "coupon fans" and penny pinchers, not necessary the kinds of demographics the promoters are looking for.

Web-based email providers like Hotmail and Yahoo have also set up their own direct-email services where users opt-in to receive offers from merchants who sign up with the providers to send targeted offers to users of these web-based email providers. One such service is Hotmail's MSN Featured Offers **(FIG. 10a)**. One of the benefits of this method is that the promotions are tagged differently than normal email, giving the promotion a sense of legitimacy. The other benefit is that these promotions often do not take up space in the user's service disk quota. Nevertheless the drawback is that recipients need to opt-in to receive these promotions and the promotions still clutter the user's inbox and they do not expire. One of the further drawback is that these promotions suffer the drawback of email, where the user is forced to open the promotion to see its contents as the subject line of the promotion such as "HP Printer 5500C for $100" often does not provide enough information for the user (What is the HP 5500C? How does it look like?).

One method used by promotions provider Greenmail.com is where promotional graphics are shown instead of text in the listing of promotional offers **(FIG. 10b)**, this method suffers from a cluttering of the screen as static graphics take up a large portion of the browser screen space as opposed to text (Greenmail.com is not an e-mail site).

Aside from the major web-based email providers like Hotmail and Yahoo, there are many smaller Internet Service Providers (ISP) who provide web-based email service to their customers. Since

these ISPs are focused mainly on the operations of their network, they do not have the resources to set up their own direct marketing organization and would benefit from being part of an affiliate system that would supply the technology and direct marketing content to them.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide online marketing and advertising systems and associated methods to deliver targeted promotions to web-based email users, email users and other registration based web-site visitors that are associated with predetermined marketing profiles. These profiles allow the web-based email providers to allow marketers to target the recipients while preserving the personal information of each recipient and protecting their users from potential spam.

Here on after, the document will mainly refer to web-based email systems and providers – however the invention may apply equally to all other kinds of registration based web-sites.

The present invention may be hosted on a web-based email provider's system or be hosted by a 3rd party and the promotions be delivered over a network to multiple web-based email systems.

It is a further object of the present invention to provide marketing systems and associated methods to deliver targeted promotions to web-based email users within the web-based interface but without taking up the user's email disk quota space, with the ability to manage these promotions from a server separate from the server that manages the user's email content.

It is still a further object of the present invention to provide marketing systems and associated methods to deliver promotions to web-based email users in a specialized folder within the web-based email interface or in a special promotion only section (Offer Box) within the inbox of the web-based email interface. The promotions may have expiry dates, when which the promotion will be automatically deleted from the system.

It is still a further object of the present invention where special search related offers are placed in the above mentioned folders or Offer Box, wherein the offers are based on the user's prior web search queries.

It is still a further object of the present invention to provide marketing systems and associated methods to allow a method to preview a promotion directly from the an aggregate listing of promotions, or a mixed listing of promotions and email without opening the message itself, allowing the promoter to put creative mechanisms such as graphics, animation or multi-media in the preview to entice the user to open the promotion itself. The preview routine further helps the user by giving the user a better idea of the content of the promotion than by guessing from the subject line of the promotion.

It is still a further object of the present invention to provide marketing systems and associated methods to users of the web-based email service to select promotions and coupons online and send them to be printed by a separate system and mailed through the postal service to the user to be redeemed at a store. The systems and method of the present invention therefore enables promotion recipients who do not have access to a printer to take advantage of these promotions as well as provide coupon issuers who do not want their coupons to be duplicated a means to participate in online promotional methods.

In a preferred embodiment, web-based email providers collect information about users and this information is categorized and created into profiles. These profiles and not the actual customer information is transferred to a central system that provides the promotions for a network of web-based email providers.

In a preferred embodiment the invention is realized over a networked computer environment, where in promoters create promotions and specify the target profiles of their intended recipients, wherein the system will automatically place the promotions into specialized promotion folders in the web-based email providers' users' accounts. Users who log into their account will be able to click to the promotion folder(s) and preview or purview the promotions.

In a preferred embodiment, the listings of the promotions will each include a triggering routine that will trigger the showing of a preview - either an image or graphic, an HTML layer overlay or a Macromedia Flash overlay graphic or any other routines obvious to those skilled in the art. The triggering routine in a preferred embodiment will be an icon.

In a preferred embodiment, the invention is realized over a networked computer environment, wherein a promotions server resides as a node on the network. The various promotions are stored on the network of the server and preferably on the server. When, for example, a user using a browser accesses the web page that is affiliated with the promotions server process, which contains the listings of the promotions, the affiliated page's encoding includes content served by the promotions server process. The affiliate web-based email provider's web server would also contain a client process that will send encoded profile information to the promotions server to enable the server to serve the correct promotions to the user.

The user will be able to view a listing of promotions when logged in to his web-based email account. Upon moving the mouse on an offer listing or a triggering icon, a JavaScript or VBscript code is executed on his browser that will make a small overlay window appear showing a preview of the content of the promotion. Upon clicking on a link on the listing, the browser will then send a request to the affiliate web-server process, which in turn forwards the request to the promotions server to load the content of the promotion.

In a preferred embodiment, the previews of the promotions will be loaded only after the visible content of the listings are loaded to enable the page to look as if it has completed loading earlier. The previews of the promotion, which may contain graphics and other audio or visual elements, will load in the background while the user is viewing the listing. This can be achieved using script code such as JavaScript that is loaded into the user's browser, server code, or a combination of both.

In a preferred embodiment, the invention includes a central printing server that is connected to the promotions server over a network. The central printing server will print out promotions and coupons that will be mailed to users of affiliated web-based email providers.

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

FIG 1. is a block diagram illustrating the relationship between a large networks and one embodiment of the system and method for direct marketing over a network of the present invention.

FIG 2. illustrates a web-based email interface of an affiliate with a graphical link to the special promotions folder in one embodiment of the present invention.

FIG 3a. illustrates an example of a list of promotions in a special promotions folder within the interface of a web-based email provider in one embodiment of the present invention..

FIG 3b. illustrates an example of a preview triggered by the hovering of the mouse on top of an icon that serves as a triggering routine in one embodiment of the present invention.

FIG 3c. illustrates an example of content within a promotion served in one embodiment of the present invention.

FIG 4a. illustrates an example wherein promotions are placed within the same page as the listing

of a subscriber's e-mail in one embodiment of the present invention. The promotions includes a plurality of promotion types, such as direct marketing offers, e-mail offers and search query offers.

FIG 4b. illustrates an example of a preview of a promotion triggered by the hovering of the mouse on top of a triggering icon.

FIG 4c. illustrates an example of a preview of a search query based offer triggered by the hovering of the mouse on top of a triggering icon.

FIG 4d. illustrates an example of a search page of sponsored and non-sponsored search results, where certain sponsored listings may be listed in the embodiment of the invention in FIG 4c.

FIG 4e. illustrates an example of a page that allows subscribers to customize the offers based they received based on a plurality of criteria such as favourite search terms, demographics, interests and geographical location.

FIG 5. is a diagram explaining the processes performed in a preferred embodiments.

FIG 6. is a flowchart of a software routine for a promotion issuer according to a preferred embodiment.

FIG 7. depicts the flow of information in a system delivering online promotions to consumers according to a preferred embodiment.

FIG 8. depicts the sequence of processes involved in displaying a listing of promotions to users of a web-based email provider according to a preferred embodiment.

FIG 9. is a flowchart of a software routine for a web-based email user according to a preferred embodiment.

FIGS 10A and 10B. shows examples of Prior Art implementations of promotions delivered to users within a web-based email provider's system that does not contain the dynamic preview feature or the "offer box" feature.

DETAILED DESCRIPTION OF THE FIRST PREFERRED EMBODIMENT

In **FIG 1.** The basic architecture of the network **10** comprises a plurality of affiliate web-based email (WebMail) sites **11**, the user's browser **24**, a promotions (promo) server web site **20**, and its supporting account management system **19**, storage **22**, and a optionally a plurality of print servers **23**. The architecture may include one or more affiliate Portal websites **13** which may be a news portal, financial portal or any other content or e-commerce based website familiar with one skilled in the art, one or more affiliate POP e-mail provider's systems **15**, and one or more affiliate ISP custom user interface sites **17**. An example of a ISP custom user interface site is the AOL user interface which user's have to launch in order to get online.

Each affiliate system will include a client process **12, 14, 16, 18** that is responsible for the integration and communication between the affiliate server processes **11, 13, 15, 17** and the promotion server **23.**

The discussion of the invention will now focus on the web-based email affiliate systems **11**, although it equally applies to the other affiliate systems **13, 15, and 17**.

Overview

FIG 7. is an overview showing how the information and activities flow from the creation of the

online promotion to its selection and printing by the consumer or central printing system and its ultimate redemption.

The process starts with the promotions issuer **700** who creates the promotion (which may include coupons and certificates) and accompanying recipient targeting instructions and uploads them to the promotions server **701** which receives the instructions and content which are stored in storage. The web-based email user, through his PC **706**, logs in to the affiliate web-based email server **702**, to check for email and at the same time decides to check for promotions. The promotions client on the affiliate web-based email server **702**, sends information about the user (but not personally identifiable information like email or name) such as zip, age, online behavior profile, and personal preferences to the promotions server **701** to retrieve the targeted promotions. The data sent may include a generated ID of the user. This ID may be used to track a user's promotions redeeming behavior - however, the ID does not reveal the user's name or email address. The promotions server **701** serves up the promotions and logs the event in its records for billing and reports purposes.

The promotions then get served to the user's PC **706**, wherein the user may save or print the promotion through an attached printer **707**. Alternatively, if a user has signed up for an enhanced service for coupons to be printed and mailed to the user, the promotions information will be passed from the promotions server **701**, to a central printing server **703** where the user's selected promotions and any additional relevant promotions may be included or printed through the attached printers **704** and mailed to the user. The kinds of additional promotions included in the package mailed to the user may depend on the user's past redeeming information if available, which is stored on the promotions server **701**. These additional promotions may include printed coupons not available electronically. In order to mail the promotions to the user, the user would have to agree to share his address and any personally identifiable information with the promotions service provider, which is sent with the promotion printing instructions from the promotions server **701** to the central printing server **703**.

The electronically saved and printed promotions may contain the expiration date, a unique serial number and a barcode with the personal identification number (PIN) of the consumer. This identification data is preferably assigned by the promotions server **701**, the PIN number can be pre-assigned to individual consumers when they register for the system.

Anytime before a promotion expiration date, the consumer may use one of two methods to redeem it. Firstly, the user may bring the printed promotions or coupon **705, 709** to the store to **708** to redeem the promotion. Secondly, in the case of a promotion for an online, the user may redeem the electronic promotion by transmitting the electronically saved promotion coupon through the network to the merchant's web site. In other forms of promotions, the user may simply use the unique serial number of the promotion or coupon to redeem the offer.

When the expiry date of a promotion is reached, the promotion will be automatically removed from the system.

Information can also be passed back up through the system, first to the promotions server **701**, from the web-based email web-server **702** and then on to the promotions issuer **700**. Thus the promotions issuer can download information about the promotion results, consumer demographical information and cost.

FIG 5. shows the various components of the said invention in a preferred embodiment. It includes the affiliate web-based email provider's application **501**, email storage **507** and user profile storage **508** resident on the web-based email provider's server **500**. The promotions system includes the promotions client (promo) **502**, promotions serving application **503**, promotions account management application **505**, billing and tracking applications **506**, promotions storage **510**, promoter accounts storage **511**, and the proxy-user profile storage **509** - all resident on the promotions server **504**.

User information is aggregated by the affiliate web-based email provider into distinct profiles **513**, which are stored in the provider's local storage **508** in a user profile table **512**. The table contains user identifiable personal information such as name, address and email, but only the profile information **513** is available to the promotions client **502**, in order to retrieve targeted promotions for a particular user on the web-based email system. In this case, a unique proxy ID **514** may also be generated by the web-based email application **501** which may be shared with the promotions client and is passed to the promotions server to create more targeted promotions based on usage patterns and preferences, as well as the ability for the user to save promotions. This information is stored in the proxy-user profile, history and preferences storage **509**.

Web-based email users may subscribe to a premium service where the user can designate promotions and coupons to be printed and mailed to the user by a separate system. When users opt for this service, the proxy-user storage **509** also stores the user's email address, home address as well as other personally identifiable information.

User Software Routine

FIG. 9 displays the software routine for the consumer - in this embodiment the web-based email user. It starts **900** with a display of the web-based email provider's public home page **901**. The user logs in **902** and is presented with the main menu **923**. The user may check his email **903** upon which both a list of email **904** and a subset of promotions in his promotions folder **905** is displayed. The promotions may appear as a separate listing or integrated into the email listing itself **904**. The user may then choose to read his email **906** or to click on a link to check the promotions in his promotions folder **907**. The user may also opt to select a promotion directly from the inbox **904**.

The user activates the promotion folder **907** by clicking a link from the main menu **923** or from his inbox **904**. The web-based email provider's application will interact with the promotions client, which interacts with the promotions server to display a list of promotions and their associated previews **908**. The user may select to view a promotion **909**. While viewing the list of promotions **908** or viewing a particular promotion **909**, the user may rate the promotion **910** to show his interest in the promotion or promotion type, forward the promotion to an email address **911**, save the promotion **912** to view or print at a later time, print the promotions or coupons **913** on a printer attached to his computer, or to select an option for the promotion or coupon to be printed and mailed **914** to his address. In certain cases, where the coupons are to be mailed directly from the promoter or merchant, the user will be prompted to release their personal identifiable information **915** such as home address to the promoter.

From the main menu **923** the user may also search or browse for promotions **916** according to categories such as Automotive, Restaurants, Consumer Goods, Grocery, Services and Online Stores. The user may enter search criteria to locate merchants or promoters by name or location within a certain geographic zone. When the user executes the search or browses, the promotions client will send the queries to the promotions server wherein the results of the queries will be displayed **917** in the user's browser.

To access more personalized promotions users may sign-up for a premium version of the promotions service (AdBox Plus) **918**, wherein the user will be prompted to agree to service terms **919** and then the user is prompted to enter personal identifiable information **920** such as name, address, zip, age, promotions preferences and email. The promotions server will log the user's personal information and service agreements in a database storage **921**. The enhanced personal information provided will allow the promotions system to send more targeted promotions to the user using techniques such as data mining. The promotions server may also combine this enhanced user information stored in the service storage **921** with other techniques such as user ratings of promotions **910**, to offer a more personalized experience for the user and provide a promoters with a more highly effective channel to promote their services or products.

The user may also choose to perform other email functions **922** commonly offered within most web-based email services, such as address book, email filtering and email blocking.

Offer Box in the Inbox

FIG 4a. shows another embodiment of the invention where promotional offers **405** are placed within the same page as the Inbox listing the subscriber's e-mail **404**. This invention allows the ability to send offers to recipients based on their profile without cluttering the inbox with e-mail offers. As the promotions in the "Offer Box" is rotated, the subscribers e-mail space is not filled up. The Web-based e-mail providers can now allow marketers to send E-mail Offers, Coupon Offers and other promotions to their recipients without the the recipient giving to pre-"opt-in" to receive offers in their e-mail inbox as these promotions are not technically e-mails. Opening these offers may open the content of the offer or direct the recipients to a "landing page" of the website of the promoter.

The Offer Box includes a plurality of offer types, such as Offers sent directly from the web-based e-mail provider's advertising business **401,** Offers from outside marketers **402,** and offers based on the subscriber's previous search queries or preferences **403.**

The subscriber may modify and customize the types of offers received by clicking on a link **407** to a customize offers page.

These Offers may or may not have the dynamic preview capability attached to them depending on whether the marketer chooses to add the additional graphic or text to for the preview. Offers and promotions with preview will appear with an icon **406.**

FIG 4b. shows an example of an embodiment of the invention wherein the user has his mouse over the triggering icon **411** for a promotional offer and a preview or "teaser" of a promotion is displayed **412.**

FIG 4c. shows an example of an embodiment of the invention wherein the user has his mouse over the triggering icon **421** for a search based offer and a preview of a text-based description of the offer is displayed **422.** In another embodiment not shown, the preview may be a graphic. The search based Offer **403,** is retrieved from either a local or 3rd party based sponsored search listing as shown in FIG 4d. As shown in Fig 4d. the search query **431** produces a listing of sponsored(paid) **432** as well as non-sponsored **433** search results. Based on the users past queries, sponsored search results may be placed within the Offer Box **403.** The advantageousness of this aspect of the invention is that subscribers may only conduct a search once, but may be "in the market" for the items he searched for a brief period of time. Placing results in the Offer Box allows the subscriber to respond to new offers matching his search criteria without consistently repeating the same search requests. The search related offers in the Offer Box may be based on the recency and frequency of the user's search. Alternatively, the search related offers may be pulled from other sources other than sponsored listings, such as online retail businesses such as Amazon.com or auctions such as eBay. The present invention covers the aspect of placing search related offers in the Offer Box even without the preview capability/mechanism.

FIG 4e. shows an example of an what the subscriber sees when he clicks on the "customize offers" link **407.** A plurality of criteria is used to target offers to subscribers. The criteria may include favourite search terms (or previous search terms) **441,** subscriber demographic information **442,** or categories of interest to the subscriber **443.** These information is compiled into a subscriber profile and is matched against potential offers.

Details on the User Interface Processes

As shown in FIG 1.the user will access his web-based email account using a browser **24** through a network to the affiliate web-based email website **11**. A preferred embodiment of the network runs on top of TCP/IP and HTTP. Upon accessing the web-based email provider's web site **11**, the user logs on an will be presented with his email-box **200**, an example of which is featured in FIG 2. A prominent graphical link **201**, is placed within the interface of the web-based email interface **200**. The graphical link **201**, entices the user to check for promotions, which may be of interest to the user.

Upon clicking on the graphical link **201**, the user will be shown the promotions folder **300** depicted in FIG 3a. In this embodiment, depending on the affiliate's preference, two different methods can be used to display the folder. In one method in FIG 1, the promotions folder will be served by the promotions client **12** resident on and integrated with the affiliate web-server **11**, and the other method, the promotions server **20** will serve the promotions folder over a network **10**. In the first method, the promotions client **12** will interact with the promotions server **20** to pull the content needed to generate the promotions folder and ensure the correct targeted promotions are shown to the user, whereas in the second method, the promotions server **20** will emulate a look and feel of the affiliate's website **11** and generate the promotions folder at the promotion server's **20** end.

Promotions Preview Process

The promotions folder **300** in FIG 3a. will feature a plurality of promotions **301** listed either in date, name, category, distance or other criteria sorted order. Each line of the promotions listing **301**, will feature an icon **302** that will trigger the preview for that promotion. **FIG 3b** illustrates a diagram of a promotions folder **310**, wherein the user has his mouse hovered over a preview triggering icon **311**, where the preview for the promotion is currently visible (active) **312**. The preview **312** will automatically disappear (deactivate) after a set period of time, after the user has moved his mouse away from the triggering icon **311** or when the user movies his mouse on triggering icon **311** of another promotion. The method to perform the preview involves the JavaScript browser scripting technology and dynamic HTML(DHTML), wherein, the preview is a DHTML layer manipulated by JavaScript. In the specific embodiment of the invention, a hidden HTML layer is created for each of the entries to place the preview content in when the user activates the triggering mechanism. This is achieved using the <DIV> </DIV> tags and setting the position style variable to "absolute" and visibility style variable to "hidden" and when the trigger is triggered, the visibility variable is set to "visible" thus showing the hidden preview content. Alternative embodiments may use one only one hidden HTML layer that is shared between different previews or any other methods to achieve the overlay or sliding out effect familiar to those skilled in the art such as the use of IFRAMES and Java applets.

Specifically, in this preferred embodiment of the invention, each preview **312** is keyed to appear directly under the listing of the promotion **313**, appearing like a drop-down layer sliding out from under the promotion listing. Other preview methods may include an animated graphic moving across the current browser window with accompanying audio.

Also in order to prevent accidental triggering, in a specific embodiment of the invention, delays are introduced in the preview triggering mechanism to ensure that the user has his mouse over the preview trigger a specific period of time before the preview is actually triggered and shown to the user. To allow the user some leeway, a delay is also introduced before the preview is hidden after the user has moved his mouse away from the preview trigger or preview content layer .

The total payload of all the previews in the promotions folder **310** listing may be quite huge, thus

slowing down the overall loading of the promotions folder. This effect is mitigated by ensuring that the initial loading of the page does not include the loading of the "heavy" objects in the preview content, such as graphics. One method to achieve this is to initially put in lightweight content or images in place of the heavyweight graphical preview content **312**, during the serving of the promotions folder (in the HTML code), then triggering the loading of the heavyweight graphical preview **312**, by a JavaScript code after the promotions folder page has finished loading to the user's browser. The JavaScript code will load the heavyweight graphical previews from the promotions server, and replace the lightweight content or images with the heavyweight content before the previews **312** are shown. Another method to achieve a "fast load" of the promotions folder **310** is to activate the loading of the heavyweight content only after the user has triggered the preview loading routine **311**. This method may result in the user being subjected to a delay in the loading of the preview. In this embodiment of the invention, both methods are used.

A preferred embodiment of the invention further includes the ability to load preview content using a predictive loading algorithm to determine the order in which preview content are loaded in the background. The algorithm may take into account the priority given to the promotion and the size of the preview content. In addition, the algorithm may load previews based on the real-time triggering pattern of the previews by the user, which may include the proximity of non-yet-loaded previews from previously viewed and loaded previews. An example would be when the user triggers a preview **314**, any not-yet-loaded previews **315** in close proximity to the triggered preview **314** would be loaded in the background.

Another suggested enhancement to this feature is to take advantage of the Keep-Alive feature of the HTTP protocol (persistent HTTP) wherein a series of requests for content can me made on a single TCP/HTTP connection to the promotions server allowing the content to be loaded faster. Other methods to achieve dynamic loading may include using technologies such as Flash and Java or other routine familiar to those skilled in the art wherein, the preview content may be streamed to the browser giving the user an impression that the content is loading quickly.

In cases where the network is slow and there is considerable delay loading a preview after a user has activated the preview trigger, a routine is executed to delay the appearance of the preview until the preview has completely loaded. During this delay, an animation can be shown to signal to the user that the content is currently loading.

FIG. 3c depicts an example of a body of a promotion. The promotion page **320** consists of the promotion content and associated coupons **321**, options (links) for the user to print, have the coupon mailed to him, to save the coupon to be viewed later, to forward the coupon to an email address and an option to be reminded to use the coupon at a later date **322**. The promotion page also consists of links to applications such as mapping directions and store locators **323**. These applications can either be hosted locally at the promotions server, or be integrated over the network with an external mapping or locator service such as MapQuest.

FIG 8. traces the sequence of processes executed between the time the user logs in **800** to the web-based email system until the promotions folder(Ad Box) is displayed to the user **806**. The user logs in to the web-based email system **800** wherein the web-based email server authenticates the user **801** and a token **802** is sent to the browser identifying that the user has logged in. This token may be a cookie or any other secure mechanism familiar to those skilled in the art. The web page showing that the user has logged in is displayed to the user **803**. During this time, the promotions client receives data from the web-based email server, which may include demographics information or a composite or proxy ID of the user. This information is then sent across the network to promotions server to create the content of the user's promotions folder **804**. The process to create the content of the user's promotions folder **804**, includes using the demographics and any other information about the user's preference and historical behavior to select relevant promotions for the user. This process **804** may be performed in real-time. In cases where a proxy ID (an ID generated by the web-based email provider, not revealing any private

user's information such as email) is used, a database entry may be created for each user on the promotions server to store relevant promotions for the user. In the case where the proxy ID is used, the promotions folder may simply be the process of retrieving the promotions keyed in the user's promotions table in the database. Other algorithms familiar to those skilled in the art may be used to create the promotions folder.

The promotions served are then tracked and logged **805** for billing purposes and the promotions folder page is assembled by the promotions client and displayed to the user.

Promoter Software Routine

FIG. 6 displays the software routine for the promoter. It starts **600** with a display of the web-site portal of the promotions server. At the website, the promoter may choose to sign up **603** and create an account with the service provider wherein the promoter will enter his payment options such **604** credit cards, invoice billing or through an online service such as PayPal.

From the main page of the portal, a registered promoter may log-in to the site **602** by authenticating himself, either by using a user-id and password or by other authentication mechanisms familiar with those skilled in the art.

After the promoter has been authenticated, the promoter will be shown the main menu **621**, where he will be able to create new promotions. To create a new promotion, the promoter will use the system to browse templates of promotions **605**, these templates are visual and content promotion templates wherein, the structure of the promotions are fixed and the user needs only to popular certain areas within the template to develop a complete promotion. After selecting the template, the promoter then proceeds to enter details about the promotion **606**, such as the coupons, offers, graphical elements, expiry date, promotional codes and text. The promoter is then prompted to enter targeting parameters for the promotion **607**. Targeting parameters may include demographics information such as zip, age, and country, behavioral and user preferences information, preferred web-based email provider network, and the amount of promotions to deliver. The amount of promotions may include the number of impressions (times) the promotion is shown, the number of users or web-based email accounts the promotions are delivered or the number and types of profiles used in targeting the recipients of the promotion.

Finally, the promoter will be presented with the cost of the promotion **608**, upon which the promoter may select different payment options, such as credit card, invoice or through an online payment service **608**. When the user has completed the transaction, the promotion and billing information will be stored in storage **609**.

From the main menu **621**, the promoter may also display results of current or past promotions **610**. From the list of promotion results **610**, the promoter may choose to reuse an old promotion to create a new promotion **611**. The promoter may also view detailed reports **612** including billing **613** and statistics information of past promotions **614**, which may reveal such information as what kinds of recipients read or opened the promotion and which zip constituted the most response.

The system also allows promoters to conduct splits, the practice of sending different ads to different recipients of the same population. For example two different ads may be sent to 20,000 recipients living in the same zip code, split 50/50 among the population – 10,000 recipients receiving one version of the ad and the other 10,000 receiving the other version. This method allows the promoter to guage the effectiveness of the ad by looking at the results each version of the ad garnered. The promoter will be able to enter these parameters in the promotion-targeting page **607** and view the results in the promotion statistics page **614**.

From the main menu **621**, the promoter may display current running promotions **615** and make modifications to them **616**.

From the main menu, **621**, the promoter may search for promotion designers **617**, create a contract with the designer **618**, give privileges to the designer to access certain portions of their accounts in the site to create promotions **619**, and pay the designer **620**.

DETAILED DESCRIPTION OF THE SECOND PREFERRED EMBODIMENT

The second preferred embodiment of the invention is similar to the first preferred embodiment, except that in FIG 1, the Promotions (Promo) Server **20**, Account Management Server **19** and Storage **22**, are hosted and managed at the web-based email (WebMail) provider's web-site **11** location and managed by the web-based email provider. The system may also be deployed in other registration based websites such as Portals and content based sites.

Conclusion

In the foregoing specification, the invention has been described with reference to specific exemplary embodiments thereof. Other embodiments will be apparent to those of ordinary skill in the art.

For example, the preview mechanism may be integrated into non-web based e-mail email providers. It may be integrated into a proprietary e-mail interface such as AOL or it may be integrated into Outlook as an ActiveX plugin.

The preview mechanism may also be integrated into e-mail applications designed for mobile devices such as cellular phones and PDAs.

Summary

A method for placing preview enhanced messages in registration based websites, said method comprising;

a user node having a browser program coupled to a network, said user node providing requests for information on said network;

a promotions server node in operative association with a data repository responsive to a request and deliver promotions to said user node

where the promotions server node contains profile information about said user and is able to send targeted promotions to said user.

where the promotion listing contains a mechanism to dynamically display and hide graphical elements that serve as a teaser to the promotions on top of the aggregate listing of promotions.

where the mechanism is an icon.

wherein the promotion listing is in a separate folder than the listing of the user's e-mail (ie. inbox).

wherein the promotion listing is in the same page as the listing of the user's e-mail (ie. inbox).

Fig. 1

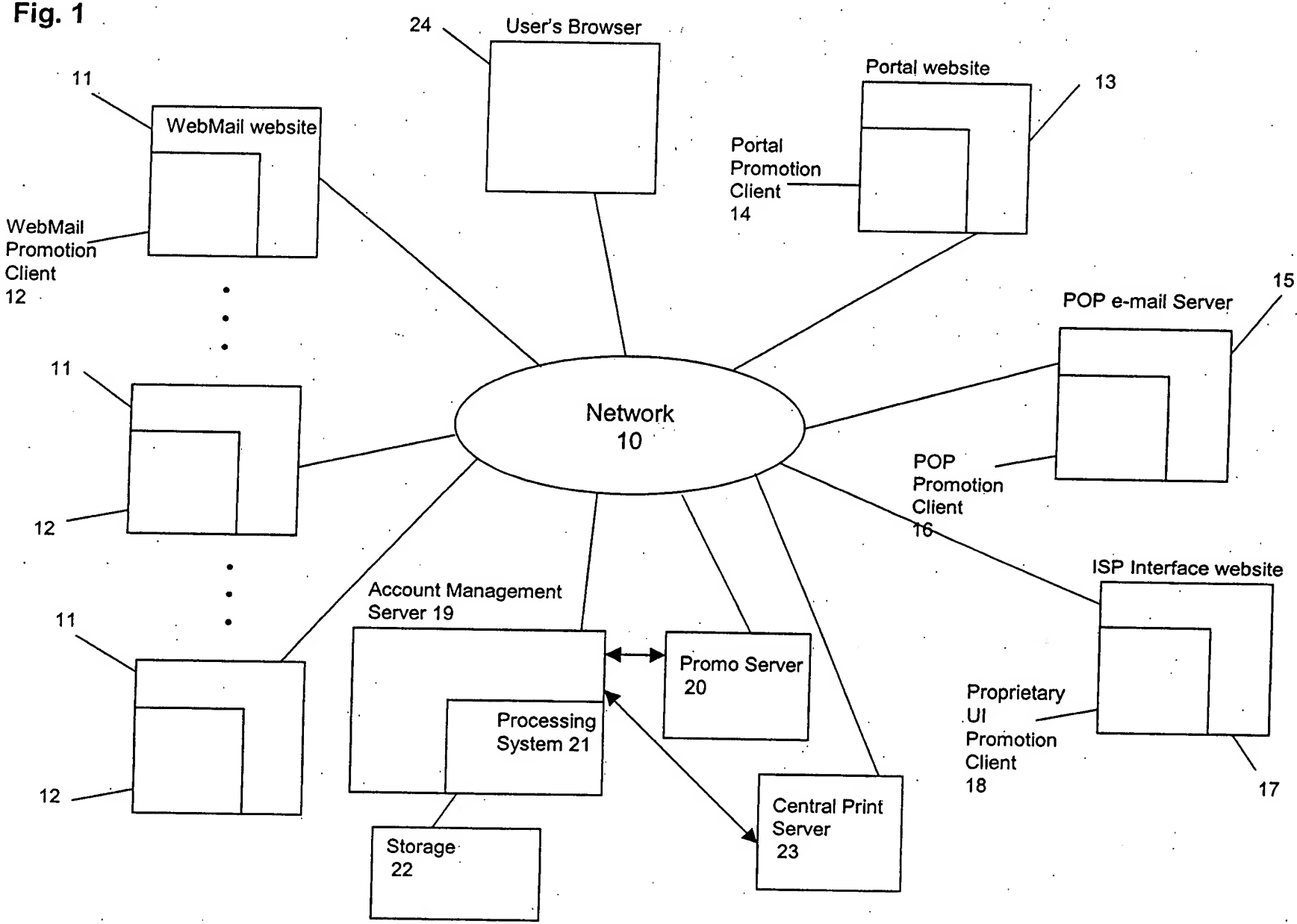
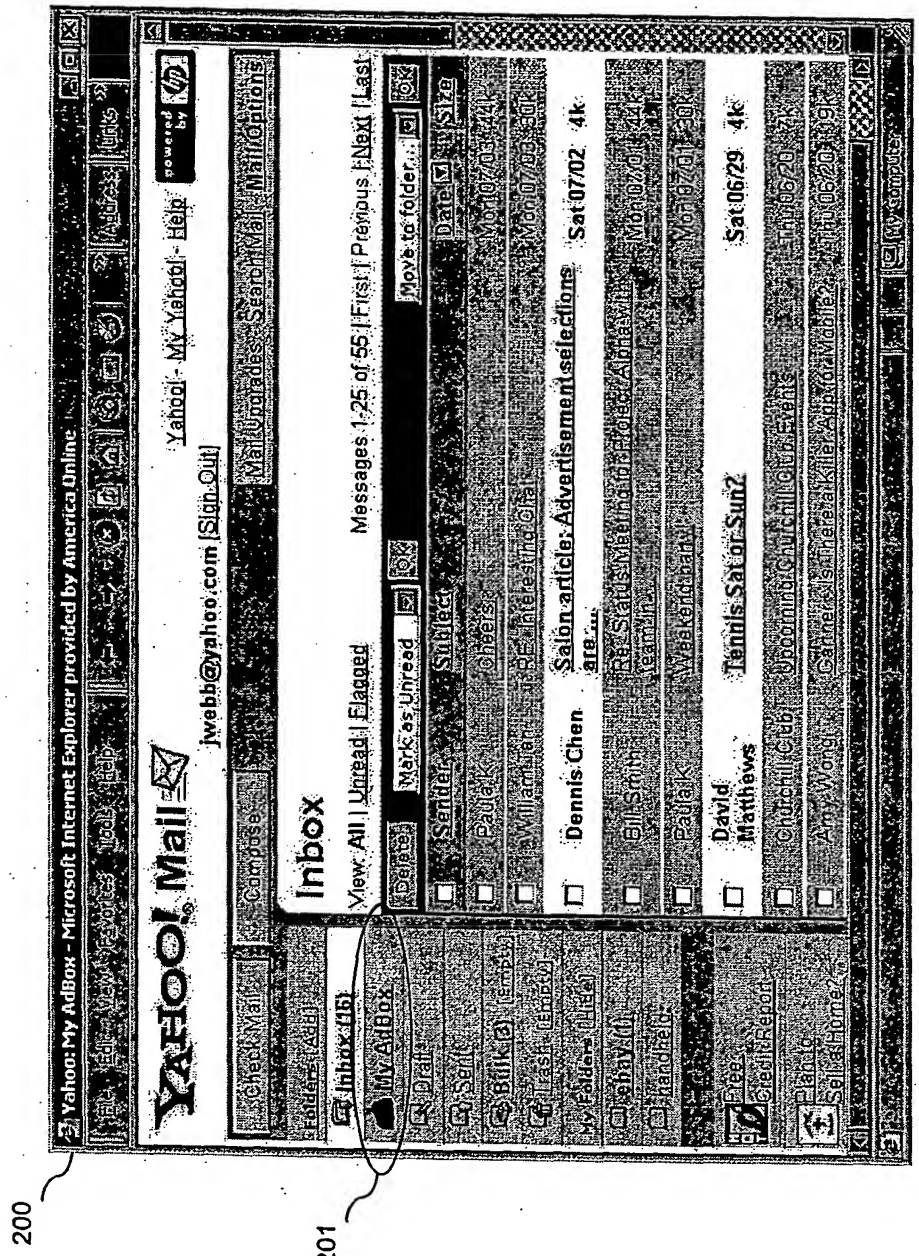
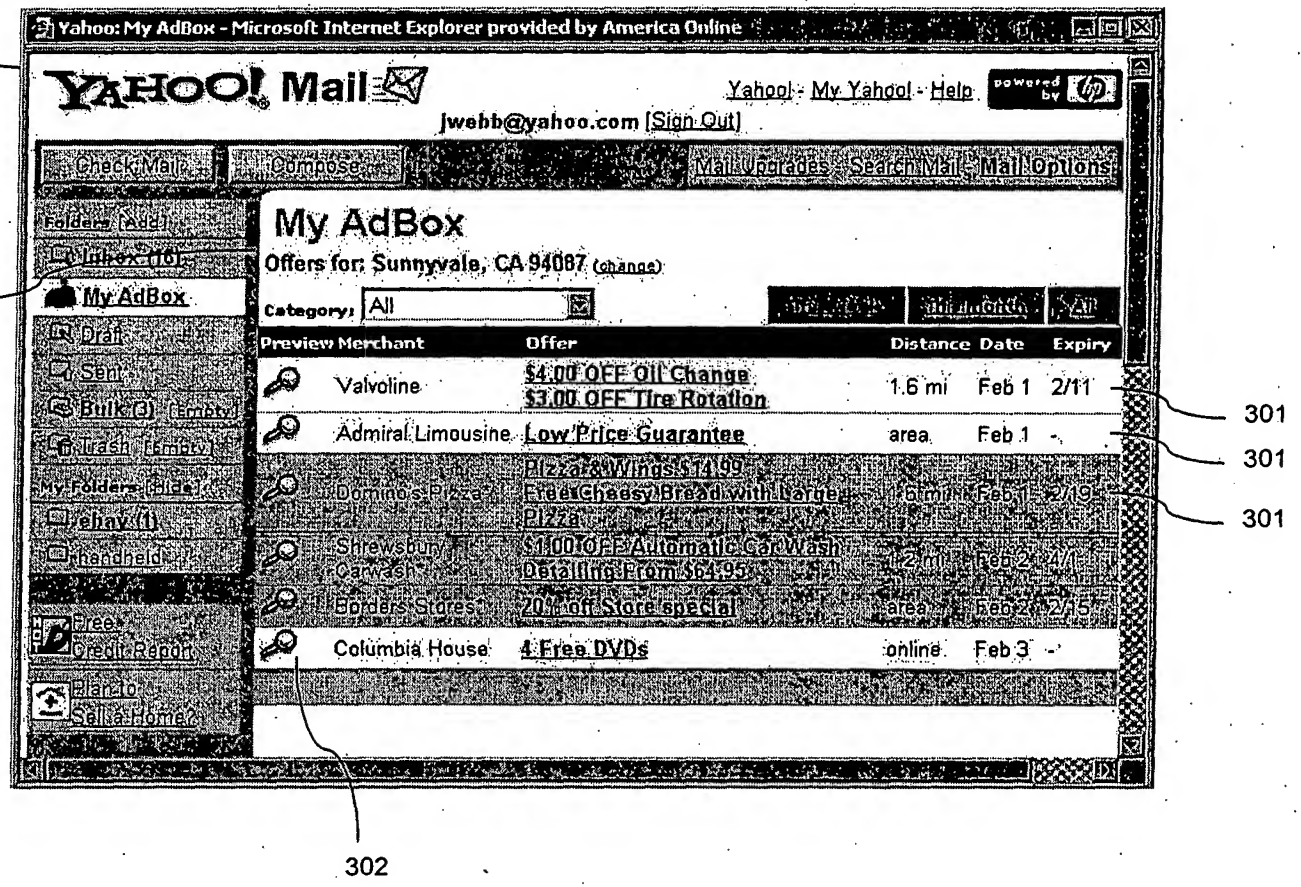

24
User's Browser
11
WebMail website
WebMail
Promotion
Client
12
Portal website
13
Portal
Promotion
Client
14
15
POP e-mail Server
Network
10
POP
Promotion
Client
16
ISP Interface website
Proprietary
UI
Promotion
Client
18
17
Account Management
Server 19
Promo Server
20
Processing
System 21
Central Print
Server
23
Storage
22
103

Fig. 2



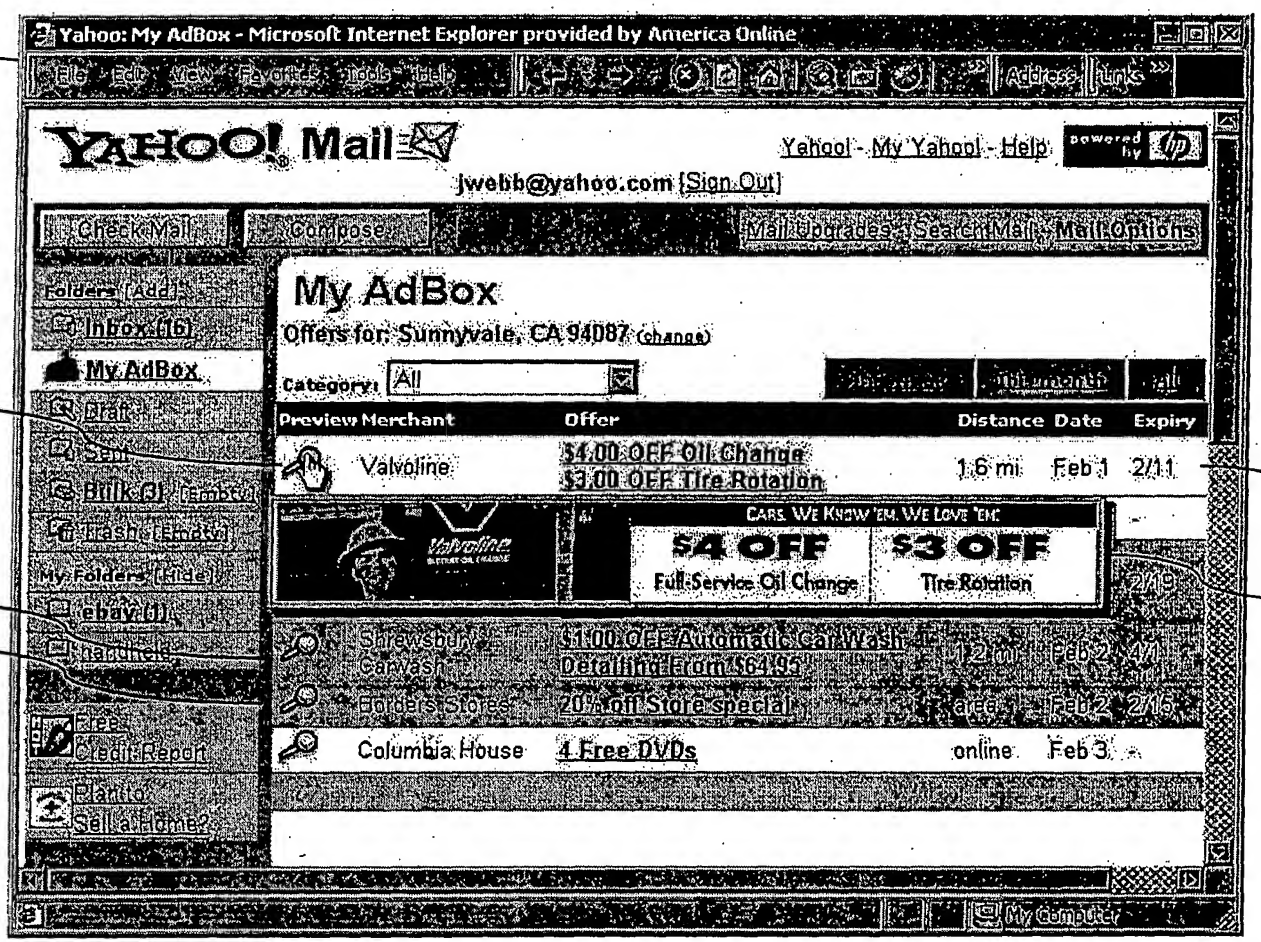
BEST AVAILABLE

Fig. 3a



105

Fig. 3b



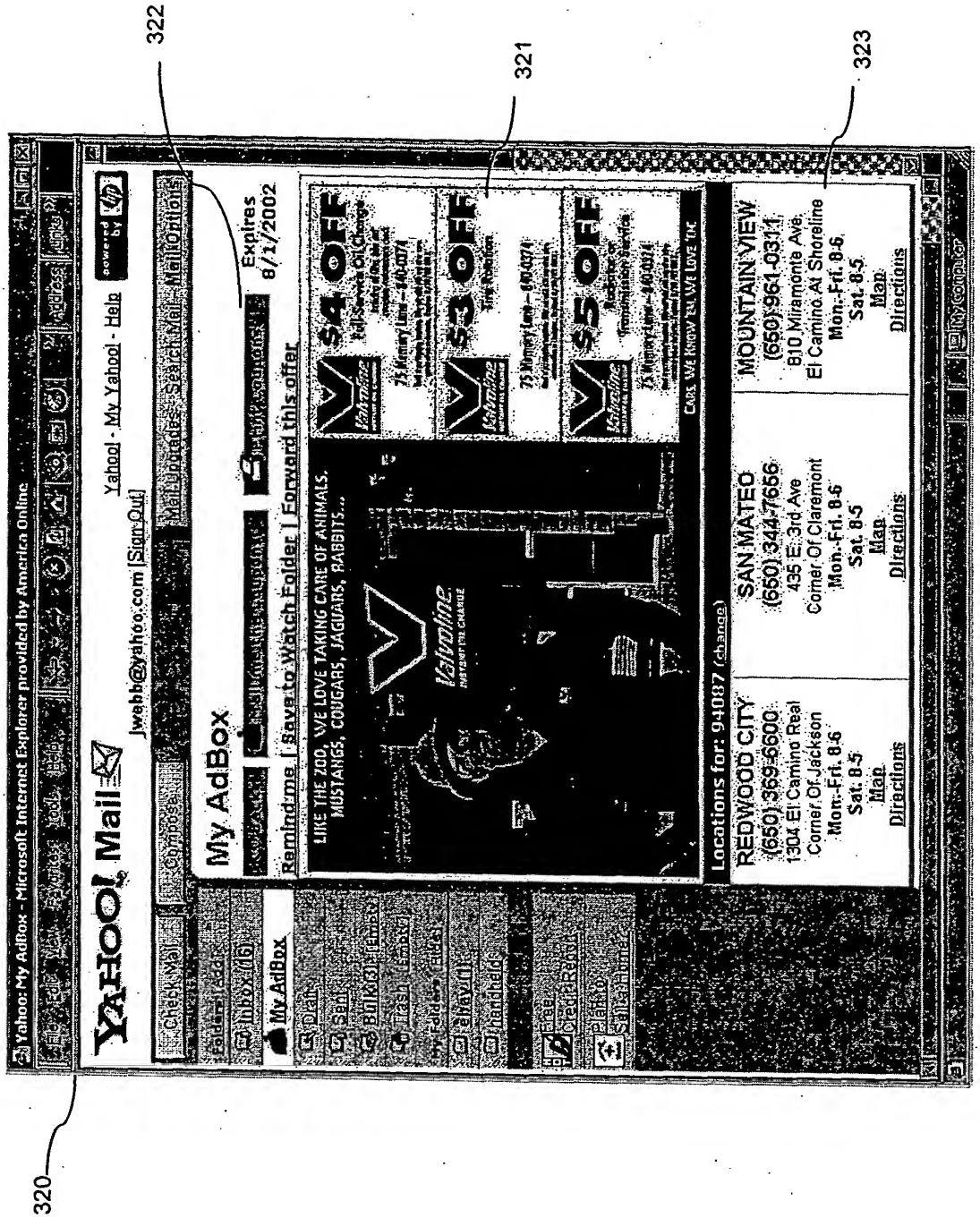


Fig. 3c

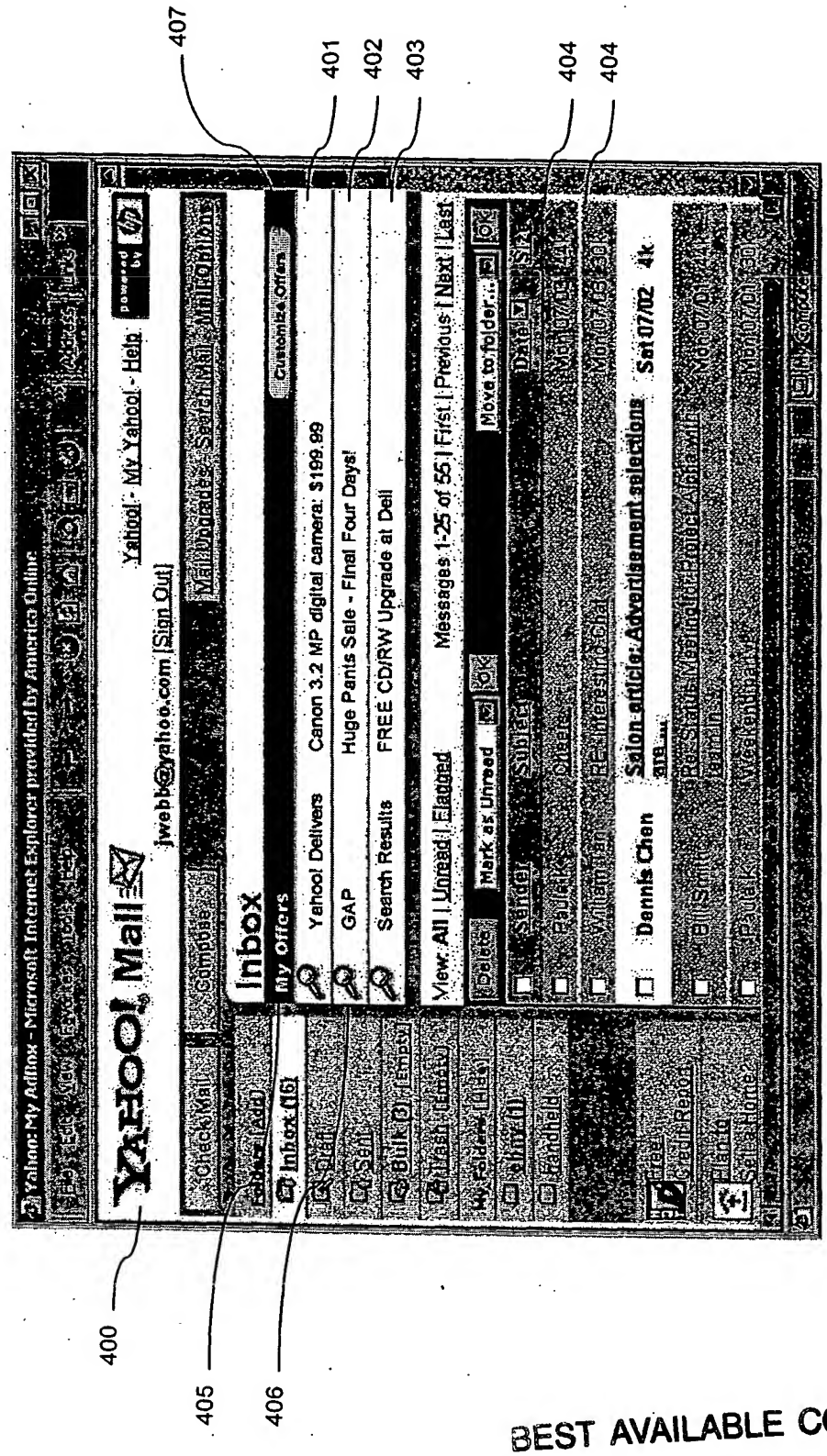


Fig. 4a

Fig. 4b

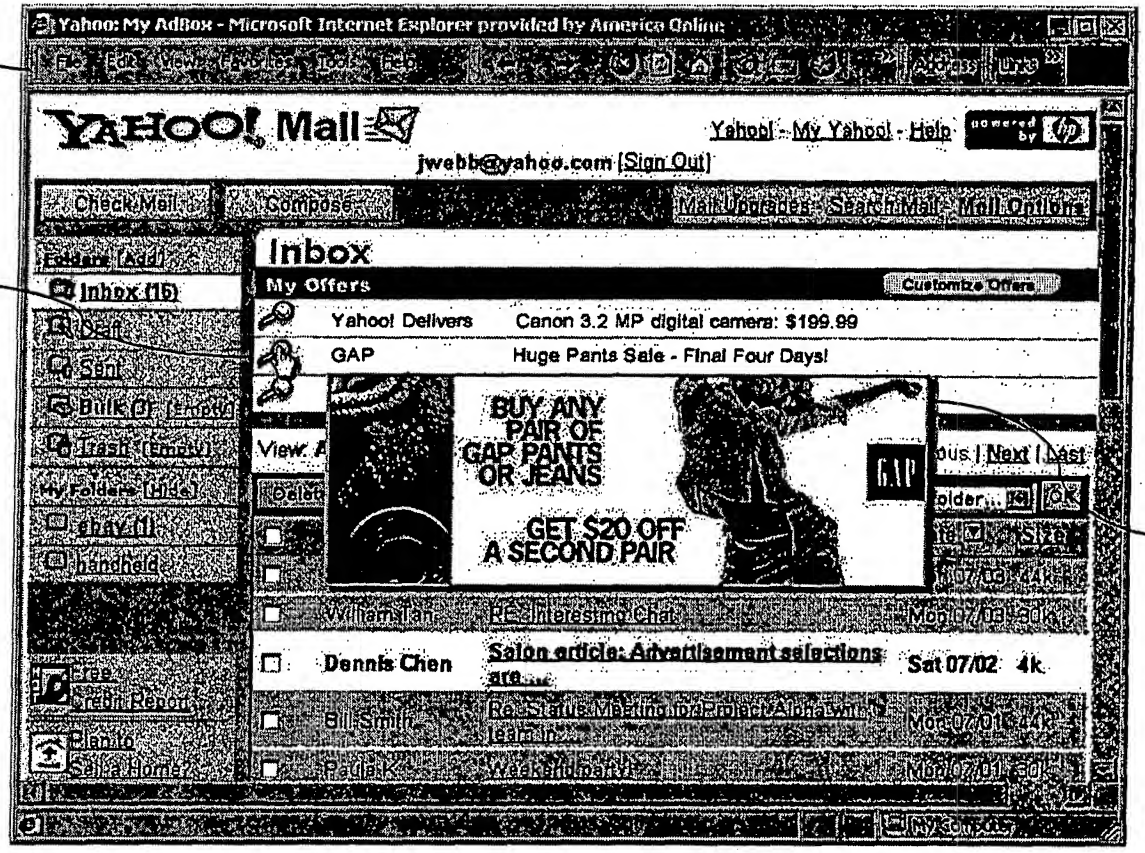


Fig. 4c

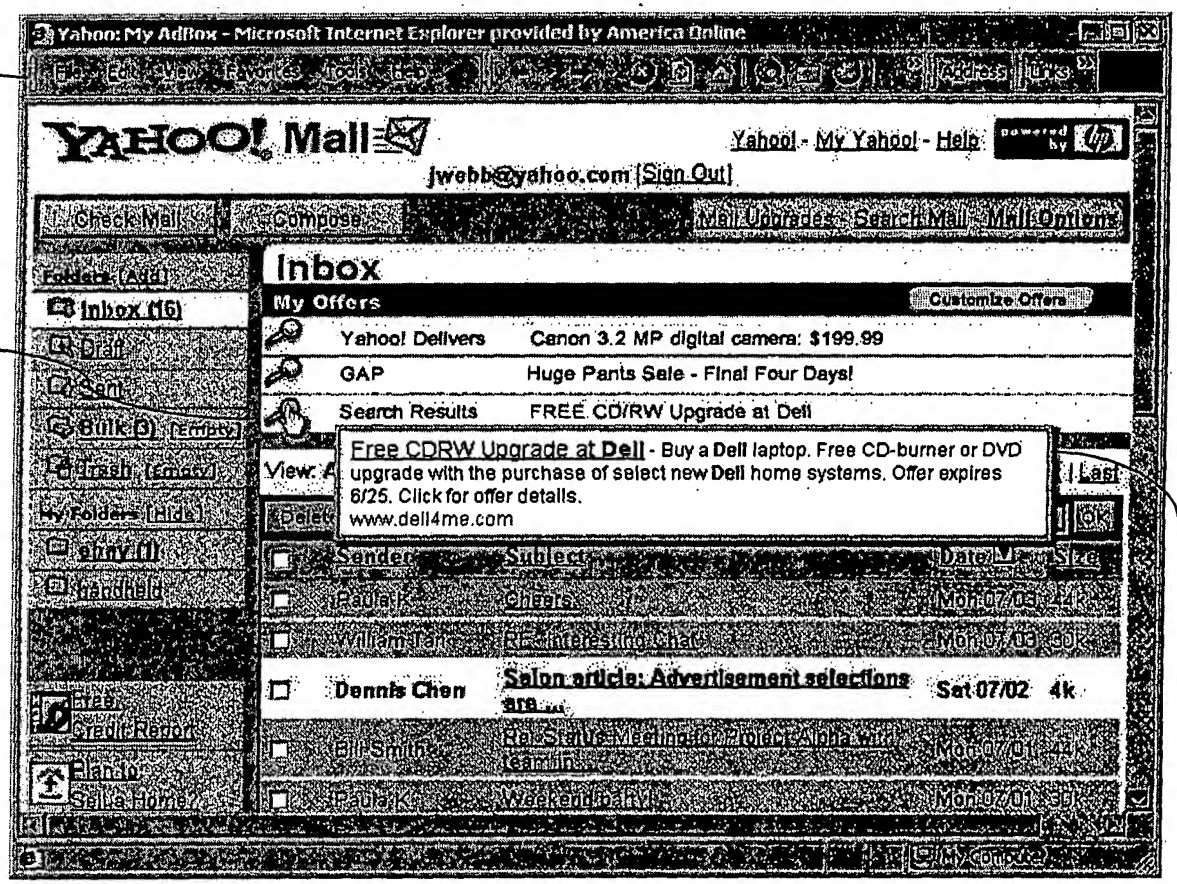
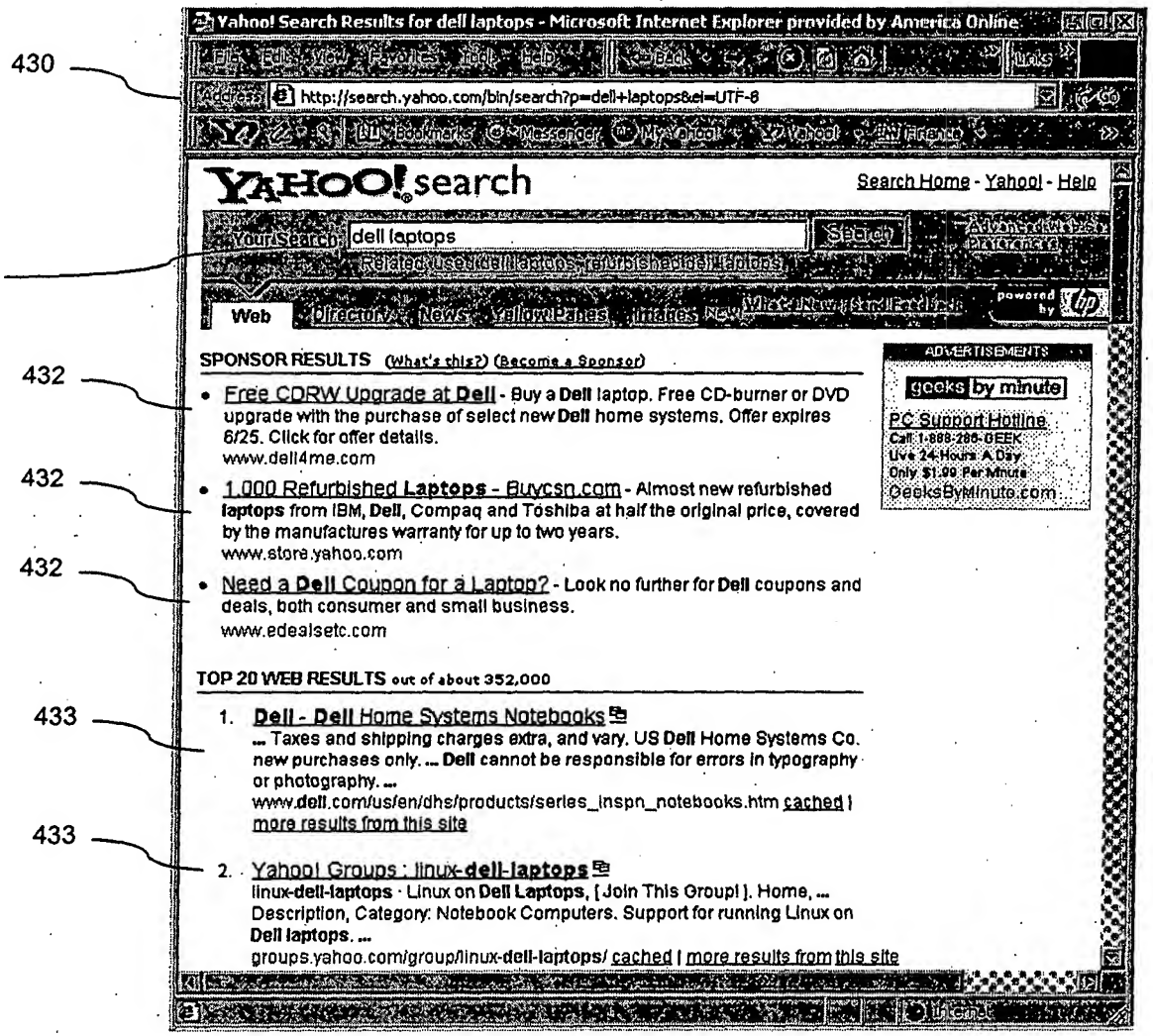


Fig. 4d



111

Fig. 4e

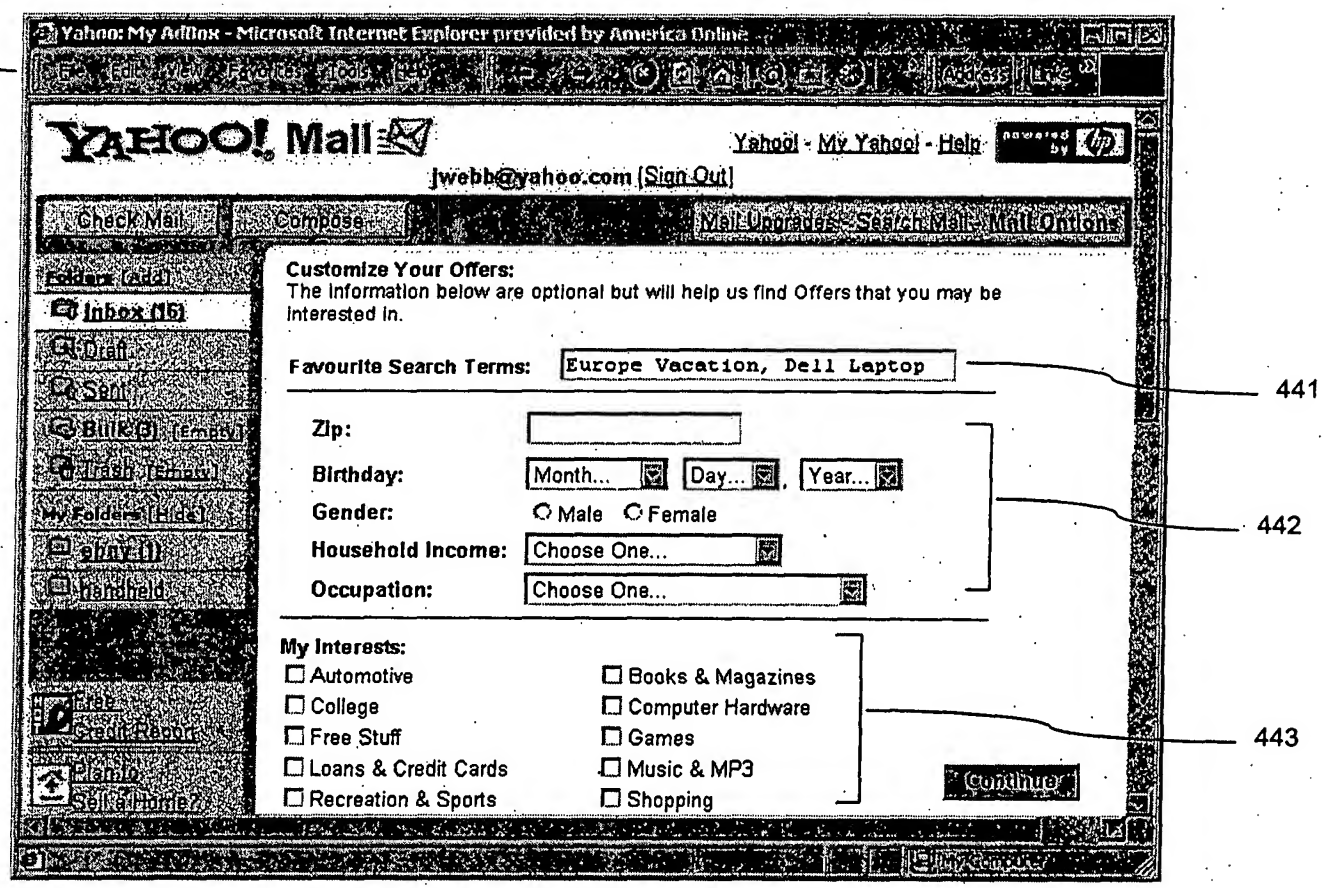


Fig. 5

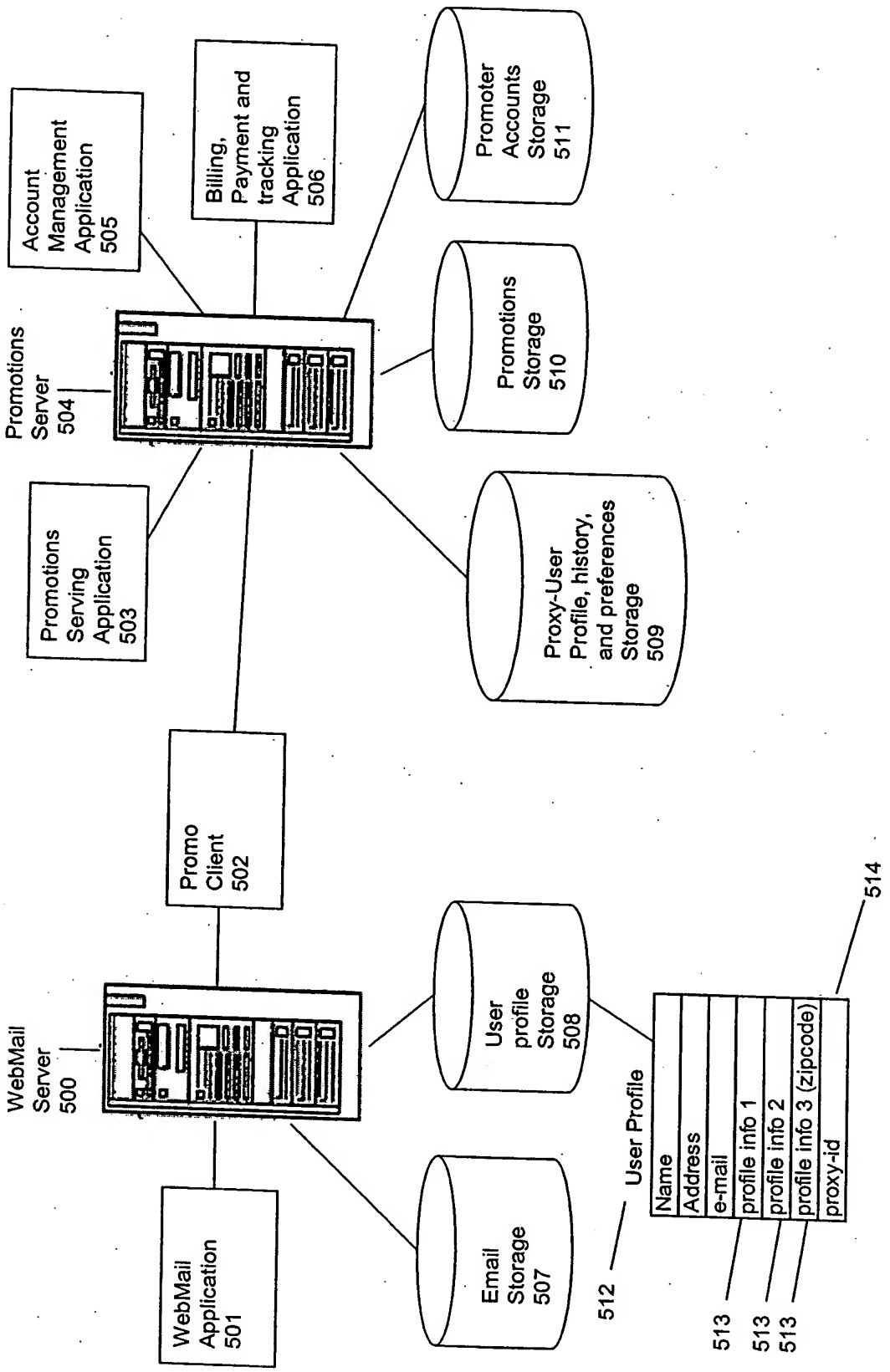

Account Management Application 505
Billing, Payment and tracking Application 506
Promoter Accounts Storage 511
Promotions Server 504
Promotions Storage 510
Promotions Serving Application 503
Proxy-User Profile, history, and preferences Storage 509
Promo Client 502
WebMail Server 500
User profile Storage 508
WebMail Application 501
Email Storage 507
User Profile
Name
Address
e-mail
profile info 1
profile info 2
profile info 3 (zipcode)
proxy-id
512
513
513
513
514

Fig. 6

PROMOTER SOFTWARE ROUTINE

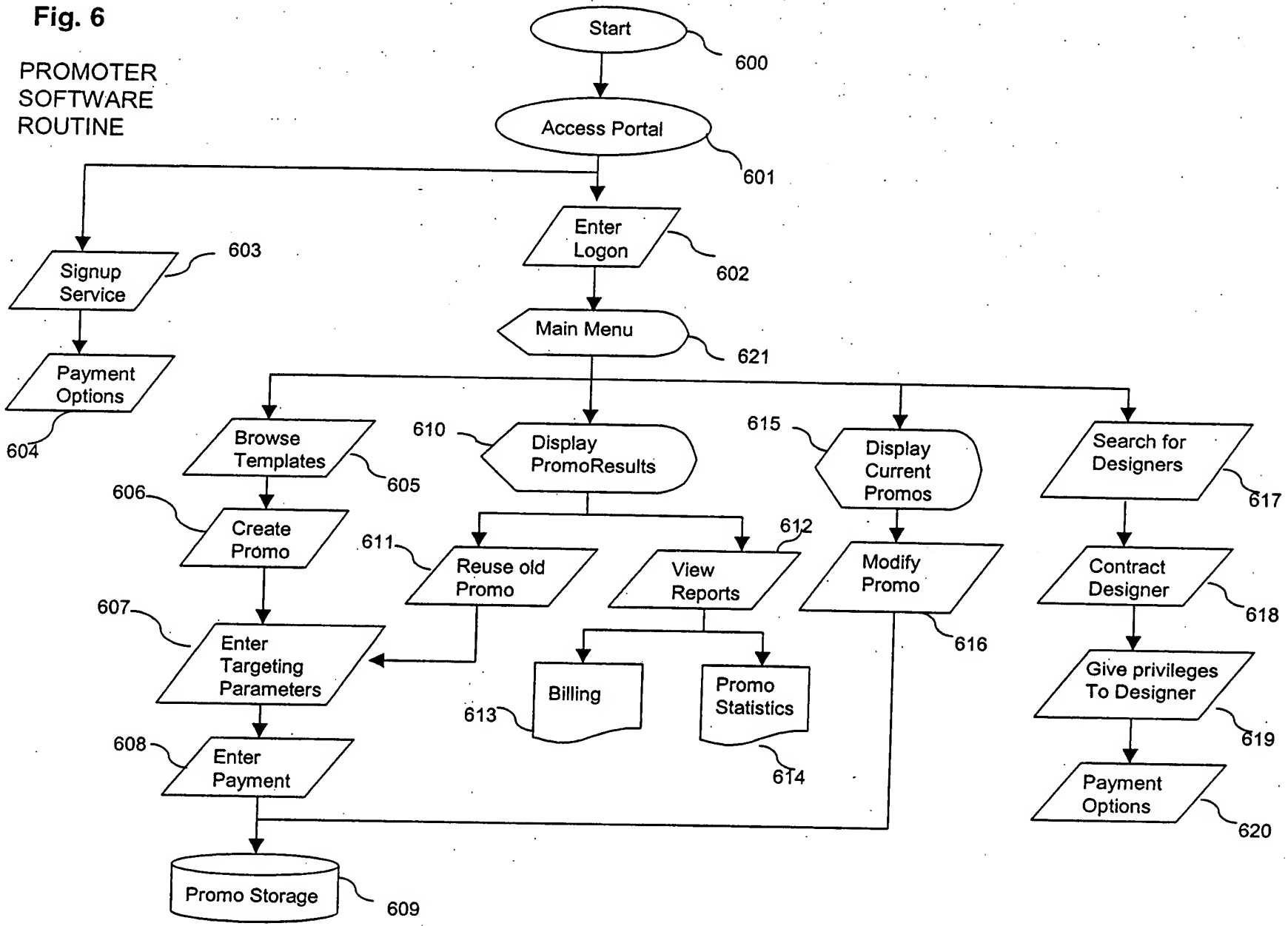


Fig. 7

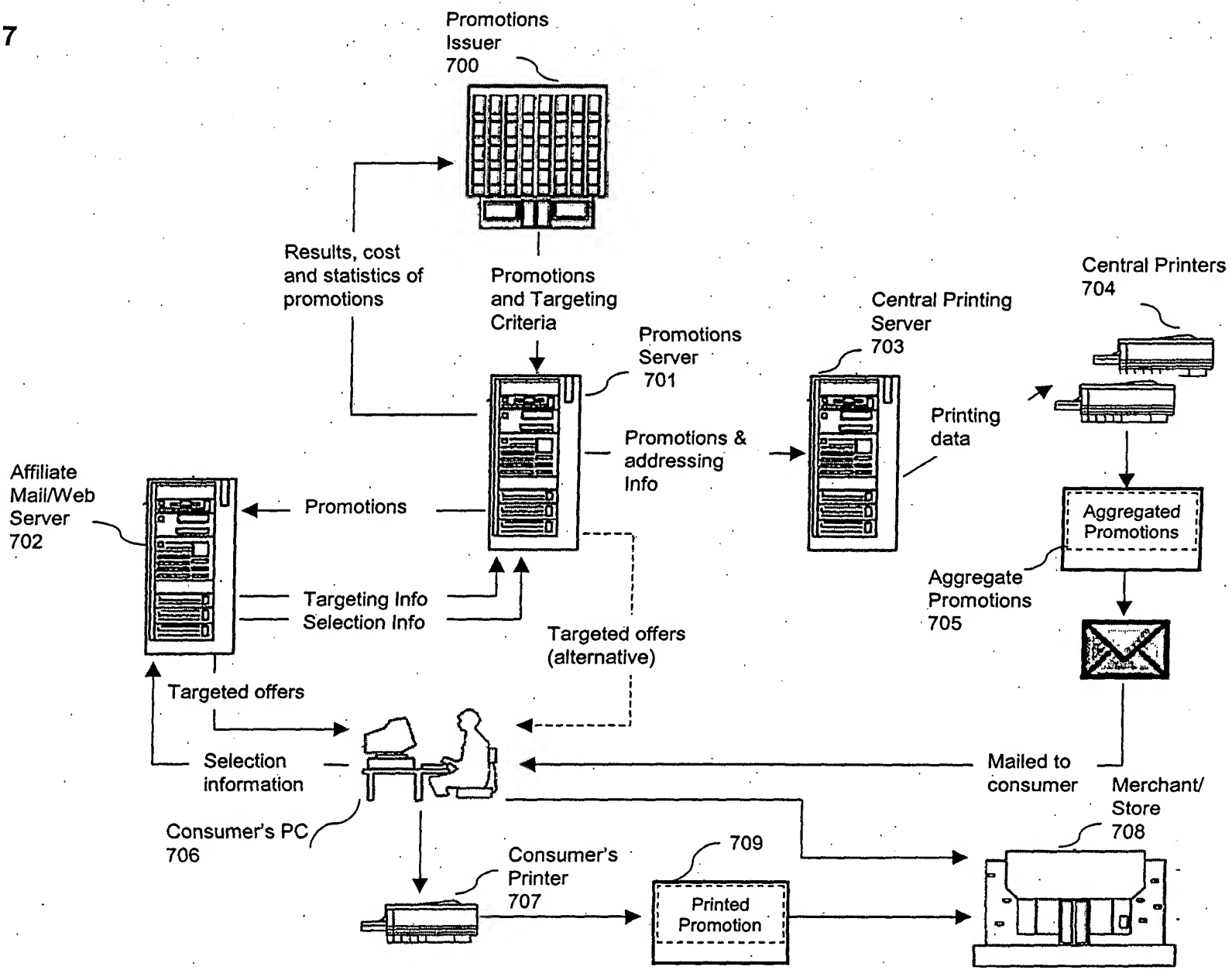

Promotions Issuer 700
Results, cost and statistics of promotions
Promotions and Targeting Criteria
Promotions Server 701
Central Printing Server 703
Central Printers 704
Printing data
Promotions & addressing Info
Affiliate Mail/Web Server 702
Promotions
Aggregated Promotions
Aggregate Promotions 705
Targeting Info
Selection Info
Targeted offers (alternative)
Targeted offers
Selection information
Mailed to consumer
Merchant/ Store 708
Consumer's PC 706
Consumer's Printer 707
709
Printed Promotion

Fig. 8

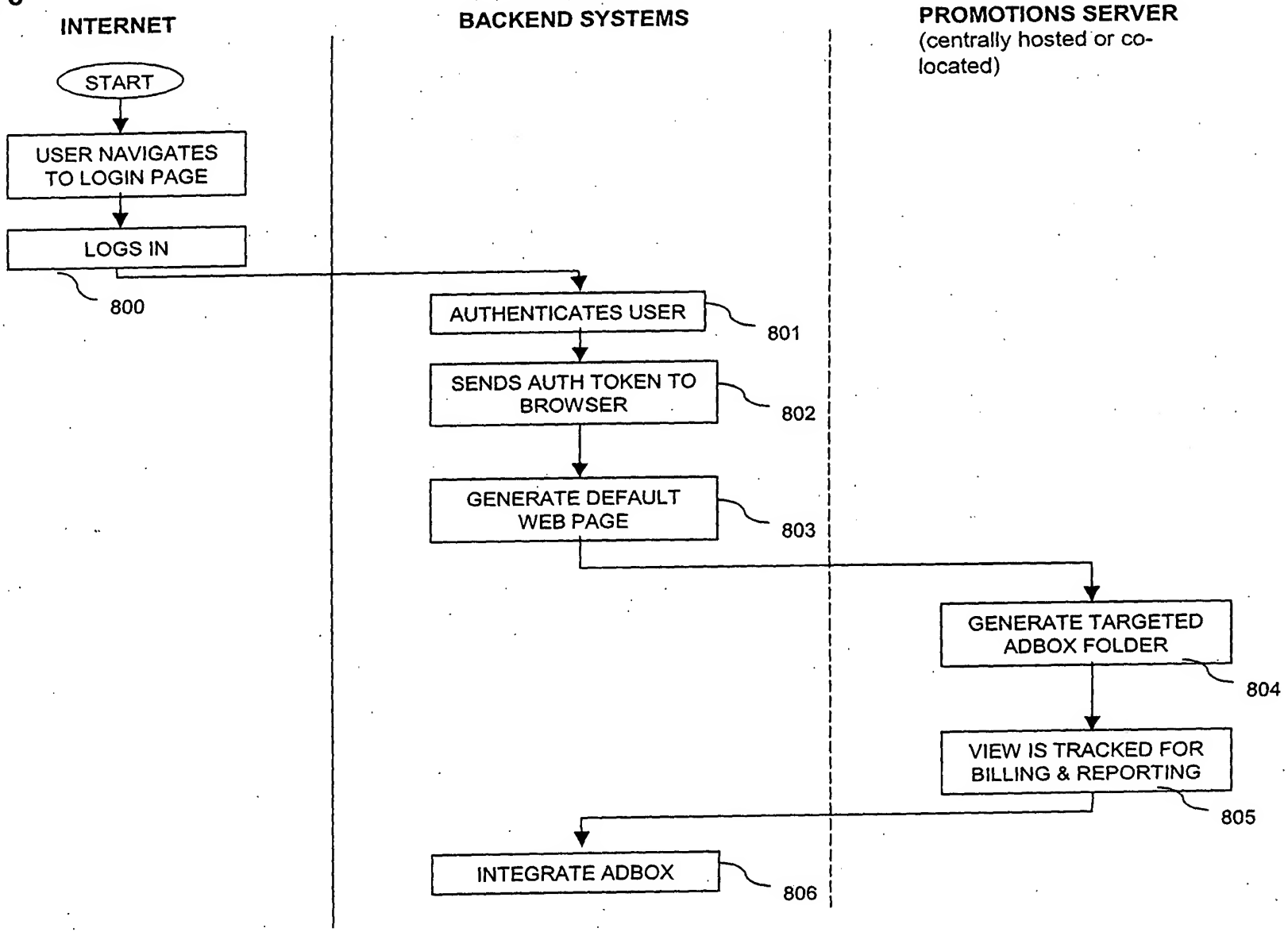

INTERNET
BACKEND SYSTEMS
PROMOTIONS SERVER
(centrally hosted or co-located)
START
USER NAVIGATES TO LOGIN PAGE
LOGS IN
800
AUTHENTICATES USER
801
SENDS AUTH TOKEN TO BROWSER
802
GENERATE DEFAULT WEB PAGE
803
GENERATE TARGETED ADBOX FOLDER
804
VIEW IS TRACKED FOR BILLING & REPORTING
805
INTEGRATE ADBOX
806

Fig. 9

CONSUMER SOFTWARE ROUTINE

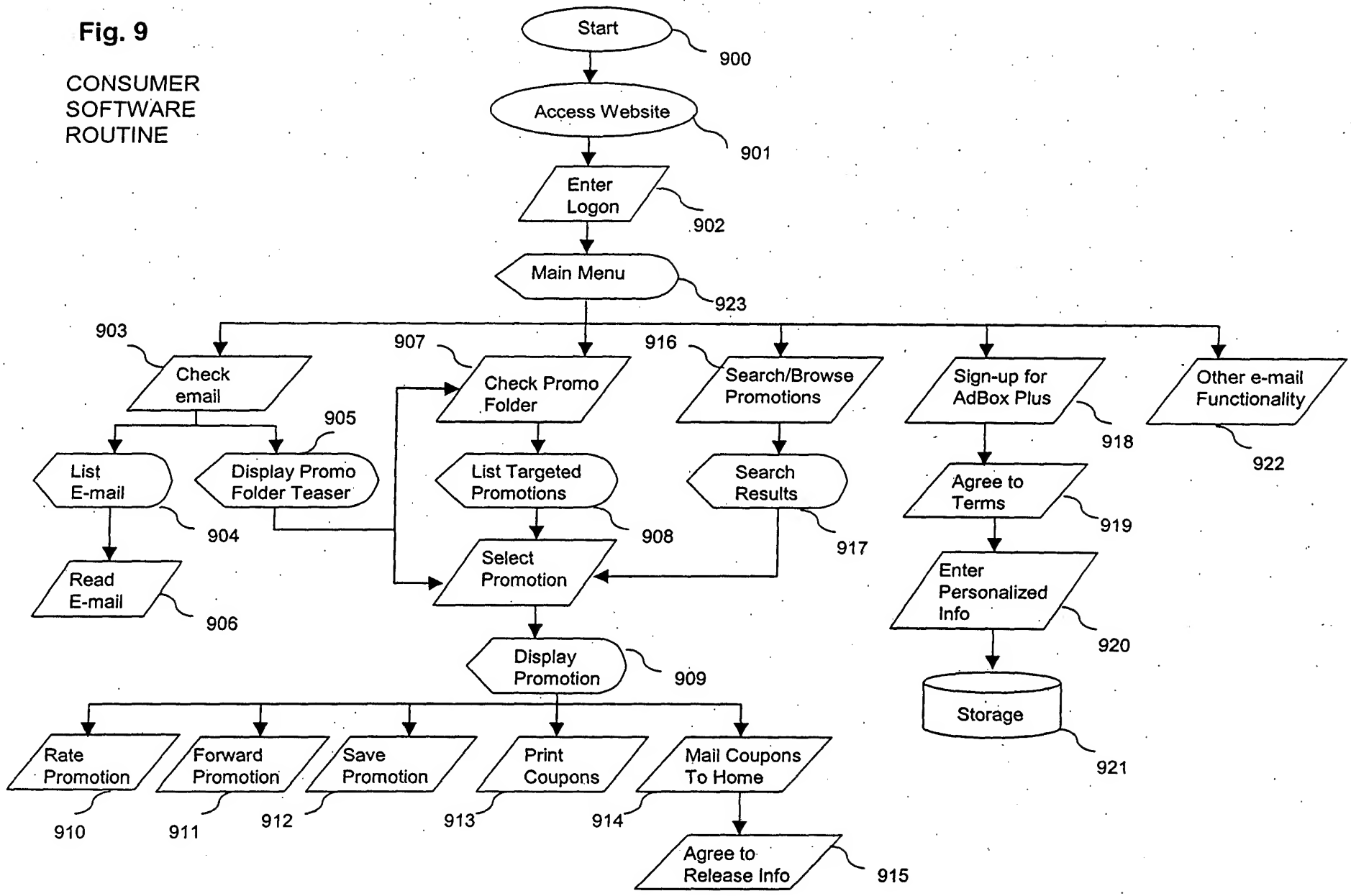


Fig. 10a

PRIOR ART
Hotmail Interface
With MSN Featured Offers

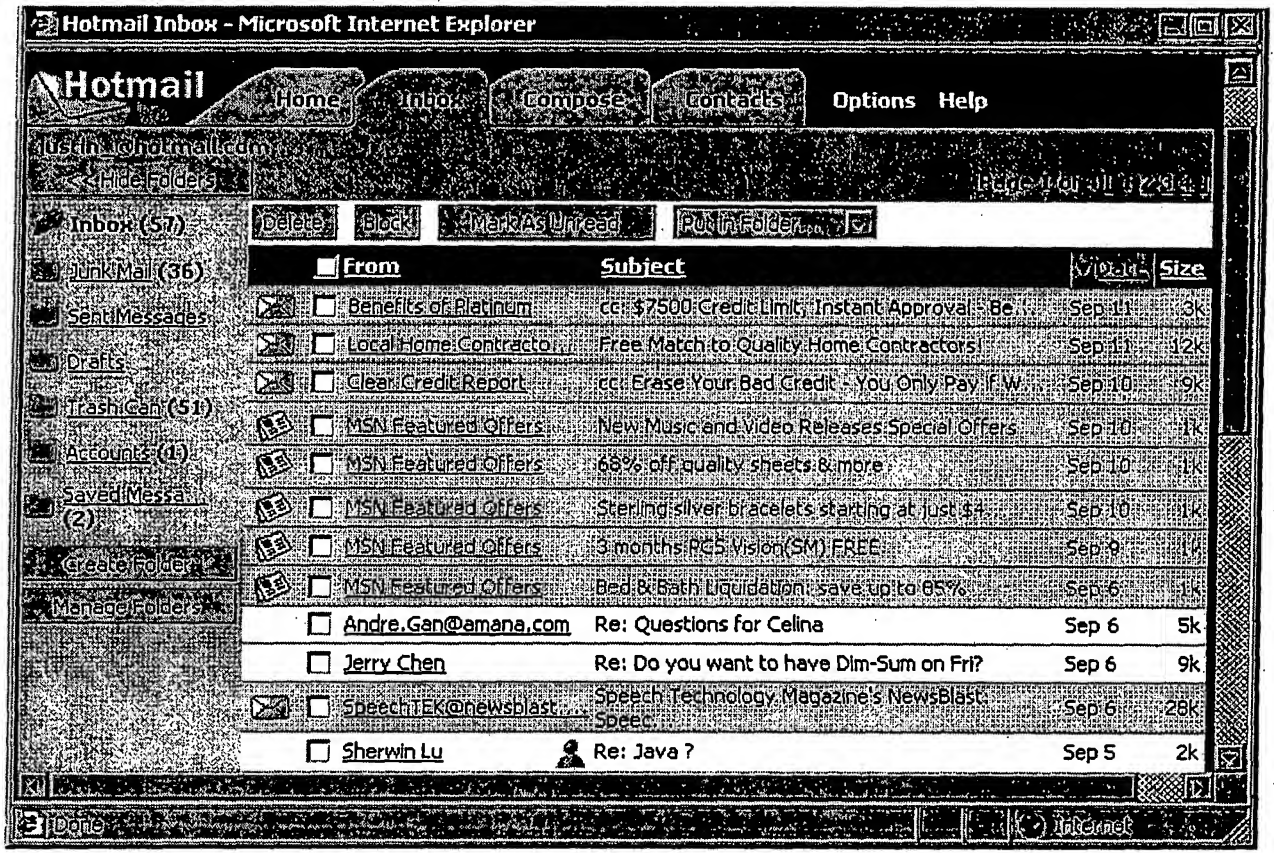
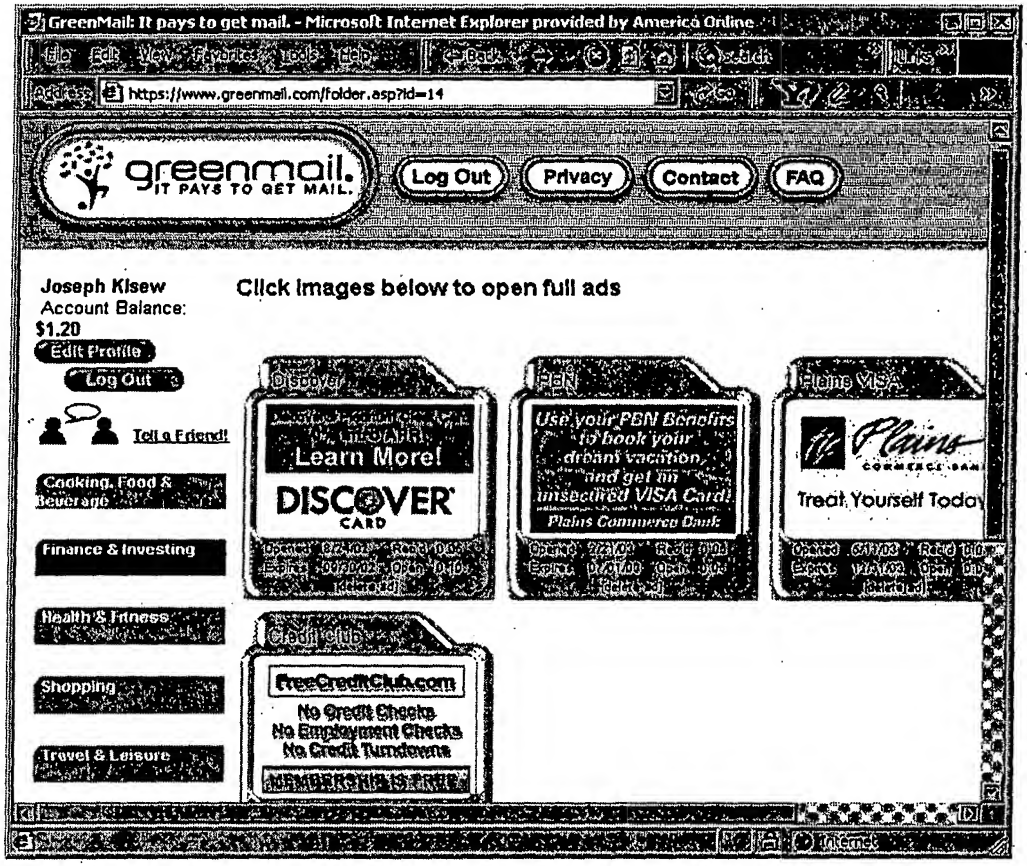


Fig. 10b.

PRIOR ART
Greenmail.com
Static graphical listing



Syst m and method of automatic management of -mail by using time-elaps d rules.

BACKGROUND

Email is one of the most used applications on the Internet. It is touted as a productivity miracle in helping companies and individuals communicate more efficiently than other older means such as telephone, mail and fax. However, as the volume of email increases, the management of e-mail is becoming a burden for most individuals who rely on e-mail to get their work done.

There has been a few ways that have been developed to manage e-mail, such as using filters. Filters are rules that users can create to sort incoming mail to predefined folders. Therefore folders such as "work" can be set up so that new e-mails that come in from email addresses that match the work domain (ie. @mywork.com) will automatically be sent into that folder. The problem with this approach is that as the number of folders increase, the burden to the user increases because he now has to check these folders for new e-mail instead of just checking his inbox.

There is one innovative solution that currently tries to help solve this problem, and that is the Nelson Email Organizer (NEO), which is an add-on application to Microsoft Outlook. The solution touted by NEO is that "There is no more inbox". This is because although the e-mails may be in any folder, the NEO application has special folders which show e-mails by date (ie. Today folder, This week folder, This month folder), so that the user does not have to check all the folders for new e-mail. However, the NEO solution suffers from a few drawbacks, in that the "date based" folders concept apply the same to all e-mails.

For recipients that want to read their e-mail from mainly a few (preferably one folder such as the Inbox), NEO does not solve the problem. NEO has a folder called "hot" in which e-mails from preselected email-addresses will appear in it. Users who want to check emails not from these preselected email-addresses will still have to check other folders for them. In addition, the NEO application maps e-mails to many folders (a new e-mail may appear in the "hot" folder, today folder, this week folder, and other preset folders). With NEO, users need to learn a whole new way to manage e-mail.

Lastly there is the concept of e-mail expiration both from the sender and recipient end. Certain e-mail clients allow their users to pre-set rules that will delete or archive e-mails over a certain age. This has the drawback that it applies to all e-mails. Microsoft Exchange and some other e-mail systems allow the sender to mark e-mails that have expiry dates. This may help the recipient in that if the e-mail client acknowledges the expiry date variable, it could automatically delete the e-mail, saving effort on the recipient's part. Nevertheless, this does not give the recipient the power to decide for himself.

What all the prior art does not solve is the situation wherein the user only wants to use a few folders, preferably a primary one to receive all incoming e-mail and yet be able to manage their e-mail effectively.

SUMMARY OF INVENTION

The embodiment of the present invention allows for a simple and intuitive system and method to manage e-mail by applying time-elapsed rules to e-mails matching specific criteria (ie. emails coming from specific email addresses). Time-elapsed rules are rules will execute an action to an e-mail message after the e-mail has been in the inbox for a certain period of time. These actions may include but not limited to, moving the e-mail to another folder, copying the email to another folder and deleting the e-mail. The criteria for the match may include but not limited to, user specified e-mail addresses, e-mail domains, subject lines, header information and the body of the email.

The invention also covers other variations on the "time-elapsed theme". Such as instead of just tracking on the amount of time in the inbox, the tracking include but not limited to the amount of time since the email has been created, sent or received.

The gist of the invention is that users are able easily apply time-elapsed rules to certain e-mail addresses. The benefit of this capability is that after a certain period of time, the e-mails will move themselves to the appropriate folders to be "archived". Here's a scenario.

The user elects to have all his emails sent to his inbox. Some of the emails are offer emails (offers@macys.com) and newsletters (news@myschool.edu). These e-mails lose their news-worthy value once the email has been in the inbox for a while. Therefore, the user could elect to apply time-elapsed rules

to these e-mails. For example, all emails from offers@macys.com to be transferred to the "offers" folder after the e-mail is 5 days old. This way, the user does not need to manually move or delete these specific e-mails.

Another example is e-mails from friends or work. The user could specify that emails from work (ie. with domain @mywork.com), to be moved to the "work" folder after 2 days, but only if the e-mail has already been read. The final parameter (is read), ensures that important e-mails are only transferred after they have been read.

Once the user has set up a number of time-elapsed rules, the user's email management tasks will have been vastly simplified. New emails will mostly get delivered to his inbox, and the less-important ones will automatically get deleted or moved after a few days, and the more important emails either stay in the inbox, or get moved after they have been read. This invention also gives control to the user, because it is the user that decides which e-mails from which email addresses are important and which are less important - unlike other methods, such as auto-expiry which delete or archive all emails in a specific folder, or sender-based expiry, in which the decision rests on the sender.

Finally the invention also covers cases where the invention is a plugin to an existing e-mail client such as Microsoft Outlook. The invention also allows for an alternative e-mail listing view interface when used as a plugin, in cases where the e-mail client does not provide for adequate customization of the e-mail listing view interface.

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

FIG 1a. illustrates an embodiment of the present invention of an e-mail client with messages in the user's inbox. Also shown is a button to launch the time-elapsed rule management application.

FIG 1b. illustrates an embodiment of the present invention of an e-mail client with messages in the user's inbox where the user has right-clicked on an e-mail entry and a menu is shown displaying time-elapsed options for the user to select.

FIG 2a-c. illustrates an embodiment of the present invention of the time-elapsed rule management interface.

FIG 3. illustrates an embodiment of the present invention of an e-mail client with messages in the user's inbox where visual features identifying e-mails entries that match certain criteria of the time-elapsed rule are shown.

FIG 4. is a block diagram illustrating an embodiment of the present invention.

FIG 5. is a flow diagram of a routine for the creation of a time-elapsed rule.

FIG 6. is a flow diagram of a routine which processes new messages for emails that match existing time-elapsed rules.

FIG 7. is a flow diagram of a routine which scan messages in an email datastore to identify messages that are ready to be actioned upon.

FIG 8. is a flow diagram of a routine which generates the view of e-mails within a folder.

DETAILED DESCRIPTION OF THE INVENTION

The embodiment of the present invention allows for a simple and intuitive system and method to manage e-mail by applying time-elapsed rules to e-mails matching specific criteria (ie. emails coming from specific email addresses). Time-elapsed rules are rules that will execute an action on an e-mail message after the e-mail has been in the inbox for a certain period of time. These actions may include but not limited to, moving the e-mail to another folder, copying the email to another folder and deleting the e-mail. The criteria for the match may include but not limited to, user specified e-mail addresses, e-mail domains, subject lines, header information and the body of the email.

The invention also covers other variations on the "time-elapsed theme". Such as instead of just tracking on the amount of time in the inbox, the tracking include but not limited to the amount of time since the email has been created, sent or received.

The gist of the invention is that users are able easily apply time-elapsed rules to certain e-mail addresses. The benefit of this capability is that after a certain period of time, the e-mails will move themselves to the appropriate folders.

In one embodiment, the system tracks the user's request to create a time-elapsed rule, by adding the rule to a time-elapsed rule list. The time-elapsed rule consists of, one or more message matching criteria (ie. from: e-mail address), time-elapsed duration (ie. 5 days), action to be taken after such duration (ie. move to some folder) and optionally, other parameters which need to be satisfied before such action takes place (ie. message needs to be read first). Whenever new messages are received, the system checks for messages that match the criteria in its time-elapsed rule list. The message identifier (ID) of matching messages are added to a Message ID list, which the system will use to flag messages that match time-elapsed rules, but are not yet actioned upon. During specific intervals, or when the e-mail application is launched, or other related events, the system may perform an e-mail scan to identify messages with message IDs that are in the Message ID list, where the time-elapsed rule is due and any optional parameters are met. The system will then take the action specified in the time-elapsed rule that applies to this message and then remove this message's message ID from the message ID list. A message ID in this invention refers to any method by which the e-mail system or application uniquely identifies this message, a preferred method in the invention uses integer identifiers that are incremented for each new message in the system.

In one embodiment of a view of a folder listing messages in it will mark messages which message ID is listed in the message ID list with a visual cue to the user to let the user know that the message matches a time-elapsed criteria and action will be taken on that message when the time-elapsed criteria and parameters are met.

FIG 1a. illustrates an embodiment of the present invention of an e-mail client with messages in the user's inbox. Also shown is a button to launch the time-elapsed rule management application. This example e-mail client **101** contains a window showing a plurality of e-mail folders such as the inbox folder **103** and a plurality of user-created folders **104**. This example e-mail client **101** also contains a window **106** displaying a list of messages in the active or selected folder **103**. Within this window **106** are a list of messages **102**. Also, in this embodiment, a button **105** is placed on the e-mail client for the user to create and manage time-elapsed rules. Other embodiments familiar to those skilled in the art for the user to create and manage time-elapsed rules can be used, such as menus in the toolbar.

FIG 1b. illustrates an embodiment of the present invention of an e-mail client with messages in the user's inbox where the user has right-clicked on an e-mail entry and a menu is shown displaying time-elapsed options for the user to select. In this illustration of an example of an e-mail client **111**, the user has "right-clicked" **113** on an email entry **112**, causing a pop-up menu **114** to appear. Within that menu are a plurality of actions the user can perform to the e-mail message. In the prefered embodiment a plurality of time-elapsed management actions are placed on the menu **115**. The actions include the ability to set or create new time-elapsed rules, to unset or delete time-elapsed rules in cases where the message already has time-elapsed rules associated with it, and to create and or assign messages to specific time-elapsed rule categories. Other methods familiar to those skilled in the art other than right clicking may be used, such as in the case of Apple computers where there is no right-click button.

Figs 2a-c illustrate an embodiment of the present invention of time-elapsed rules management windows. **Fig 2a.** illustrates an example of a time-elapsed rules management window that is shown to the user after the user has selected an action to create or manage time-elapsed rules, such as clicking on the time-elapsed management button **105** in **Fig 1a**, or selected one of the time-elapsed management actions **115** (Set Time Elapsed Rule) on the pop-up menu **114** in **Fig 1b.**

In an embodiment of the invention, there are two types of time-elapsed rules that can be created: Simple and Advanced **202**, in the Simple method, the user only needs to define four basic criteria: The e-mail address that this rule applies to **203**, the folder that the email will be moved to after the predefined time has elapsed **204**, the time-elapsed length **205** and a option to only move the message after the message has been read or marked read **206.** Other permutations and criteria may be added, but the basic premise is that the rules apply to messages matching a specific criteria present in the message, a predefine time-elapsed (which may include but not limited to the time after the message has arrived, created, sent), the action to take at or after such time and any other pre-conditions that need to be met before such action is taken.

Fig. 2b illustrates an example of **Fig 2a,** where more options are given to the advanced user. The user is given an option to either move, delete, copy **212** messages with criteria **213** which may match fields such as

the sender's e-mail address, e-mail subject line, body and even the account that the e-mail has been retrieved from (ie. AOL, Juno, Earthlink).

In **Fig 2a.** an option is given to the user to create a new time-elapsed rule category **Fig 2c.** A time-elapsed rule category, is like a time-elapsed rule whereby the message matching criteria is not pre-set, but the other variables such as the time-elapsed period **224**, action **222** and parameters **225** are set. The time-elapsed rule category is assigned a name **222.** When a user assigns the category to a specific e-mail, the system automatically associates e-mail messages from the sender of that email to the time-elapsed rule specified in the time-elapsed rule category.

FIG 3. illustrates an embodiment of the present invention of an e-mail client **301** with messages in the user's inbox **302** where certain messages that match time-elapse rules and are in the Message ID list are shown with visual identifying cues (icons) **303.** In this embodiment, when the user moves the mouse pointer above the e-mail entry which match a time-elapse rule, a small "tool tip" message will appear notifying the user the actions that will be taken and by when (for example "This message will be moved to the Catalogs folder in 3 days"). In the shown example, the message under the mouse pointer **306** will be automatically moved from the inbox folder **304** to the Catalogs folder **305** in 3 days.

Fig 4. is a block diagram illustrating an embodiment of the present invention. This embodiment is where the time-elapsed rules system **401** is integrated into the e-mail client application **402.** The email client also contains an application that performs standard e-mail routines **402**, such as retrieveing, sending, composing e-mail messages and one or more e-mail datastores **403** which contain the user's emails. In other embodiments the email datastore may be located elsewhere such as on a server over a network. **410** is a detailed diagram showing the components of the time-elapsed rules system **401.** The time-elapsed rule system includes a time-elapsed rule application and logic **411** which performs most of the routines of the application, a rules management user interface **413** which allow users to set up and manage time-elapsed rules, a time-elapsed rule list **415** which keeps track of the rules that are created, a time-elapsed message ID list (Message ID list) **412**, which keeps track of messages in the e-mail datastore **403** which match one or more of the time-elapsed rules in the time-elapsed rule list but have yet to be actioned upon and optionally an alternative folder view user-interface **414.** The alternative folder view user interface particularly applies for cases where the time-elapsed system is not directly integrated into the e-mail client, but through other means, such as a plugin or application programming interface. The alternative folder view UI will be covered in detail in the section: INTEGRATION WITH EXISTING EMAIL APPLICATIONS.

FIG 5. is a flow diagram of a routine for the creation of a time-elapsed rule. To create a time-elapsed rule, a user would have to specify certain parameters which are then fed into the routine. In step **501**, the system retrieves the message matching criteria (ie. sender's e-mail address). In step **502,** the system retrieves the time-elapsed criteria. In step **503**, the system checks if there are any other parameters or pre-conditions that the user specified that needs to be met before a time-elapsed rule is to be executed on an email message. If parameters or pre-conditions exist, the system continues at step **504,** else the system continues at step **505.** In step **504** the system retrieves the parameters set by the user. In step **505,** a new time-elapsed rule is created and added to the Time-Elapsed rule list. A variation of this routine may be used to perform updates to existing time-elapsed rules.

FIG 6. is a flow diagram of a routine which processes new messages for emails that match existing time-elapsed rules. New messages may be retrieved by the e-mail client either in a predefined interval or by the user's action. The purpose of this routine is to identify incoming messages that match existing time-elapsed rules. When the time-elapsed rules system is enabled in an e-mail client, each incoming message is checked (step **601**) against the time-elapsed rules in the time-elapsed rules list. On step **602**, if the message matches the the criteria of one of the time-elapsed rules, step **603** is taken by the system, else nothing is done and control passes back to the routine retrieving the e-mail messages. In step **603,** a new entry is created in the MessageID list that maps the email's message ID, with the time-elapsed rule that applies to this specific e-mail.

FIG 7. is a flow diagram of a routine which scan messages in an email datastore to identify messages that are ready to be actioned upon. This scan can take place at a plurality of events, such as when the application is started, when new emails are retrieved, at specific time periods, by a user action. In the specific embodiment of the invention, the scan takes place when the user launches the e-mail application and when the user changes the active folder. A more limited scan may take place when the user chang s the active folder, such as only scanning messages in the active folder. Each message in the folder (or datastore depending on the scope of the scan) is checked against the time-elapsed Message ID list (Step **701**). In Step **702,** if the message ID of the e-mail exists in the time-elapsed Message ID list, then step **703**

is performed, else nothing else is performed for that message. In step **703**, the time-elapsed rule mapped to the e-mail's message ID is retrieved from the time-elapsed rule list and the message is checked to see if all the criteria, preconditions and parameters are met (ie. the time-elapsed time has elapsed for that message and the message has been read). If the criterias, preconditions and parameters are met, then step **704** is taken by the system, else nothing else is done to the message. In step **704**, the specified action in the time-elapsed rule that is mapped to this message is performed (ie. moving the message to another folder). In step **705**, the message ID of this message is removed from the time-elapsed Message ID list.

FIG 8. is a flow diagram of a routine which generates the view of e-mails within a folder. This routine demonstrates the adding of visual cues and elements to e-mail entries (**Fig 3**) that match time-elapsed rules, to help the user to identify these messages. In step **800**, the standard user-interface elements are generated, such as the window and column headers. Each message's Message ID in the folder is checked against the message ID in the time-elapsed Message ID list and if there is a match, step **803** is taken by the system, else step **802** is taken. In step **803** the e-mail entry is generated with visual elements such as a different icon with a timer to indicate that this is message matches certain time-elapsed rules and tool-tip elements which when the user mouses over the entry will display a summary of the time-elapsed rule that applies to this message. In step **802**, the email entry is generated with standard look and feel elements.

INTEGRATION WITH EXISTING EMAIL APPLICATIONS

The embodiment of the invention discussed in the previous section does not differentiate between whether the the time-elapsed rule system is directly integrated into the e-mail client or is integrated via an external architecture such as a plugin, application programming interface (API) or some other methods familiar to those skilled in the art.

The preceding discussion would be adequate for those skilled in the art to directly integrate the time-elapse function into an e-mail client. However, in cases where a plugin or API is used the process might not be so straightforward - it is the aim of this discussion to address integrating with an existing e-mail client via an architecture such as a plugin or API.

Microsoft Outlook is an e-mail client that provides numerous avenues to customize and enhance its function. These functions include ActiveX, Outlook Object Model (OOM), Collaborative Data Objects (CDO) and Component Object Model (COM). While it is straightforward to implement the most of the time-elapsed functionality via OOM, CDO or COM, certain aspects of the invention may be more difficult to implement this way, such as the enhanced drop-down menu (**114** in **Fig 1b**) and the enhanced "tool tips" and icons shown in **Fig 3**. It is not the aim of this discussion to limit the ways to perform the before mentioned customizations that this invention applies to, but merely to suggest simpler means to achieve them. One of the approaches to solve this problem is to develop a completely new user-interface on top of Microsoft Outlook (a path taken by the Nelson Email Organizer), whereby a button such as **105** (in **Fig 1a**) is added to Outlook's toolbar that launches the new interface with all the enhanced functions. The new interface will communicate with Outlook via one of the before mentioned avenues ActiveX, OOM, CDO or COM.

However, Microsoft Outlook in particular also gives the ability to the user to create folders which display HTML pages (the page points to a URL). It is an object of this invention to allow for the integration of a new user-interface directly into the user-interface of the e-mail client (Outlook). In one embodiment of the invention that uses this approach, the "folder view" (**112** in **Fig1b** and **202** in **Fig 3**) of messages, is generated by an ActiveX object embedded in an HTML page. This ActiveX object communicates with Outlook via COM and OOM and retrieves such messages and renders them for the user. Since this user interface is in fact and "Alternative UI" **414** (in **Fig 4**). The user-interface is fully customizable because it is not restricted to the customization options of Outlook's existing "folder view". Other methods familiar to those skilled in the art may be used.

CONCLUSION

The application of the invention is not only limited to desktop-based e-mail applications. Other embodiments and environments may benefit from the time-elapsed rules functionality.

The invention may be applied to web-based e-mail, wherein the functionality is integrated into the web-based e-mail system instead of a desktop based client. The invention may also be applied to mobile clients

such as cell-phones and PDAs.

A method for placing search query based offers in the main page of registration based websites, said method comprising;

a site to which promotions may be displayed to users visiting the site

a search database with keywords keyed to certain sites

an mechanism to allow the user to enter a search query

a persistence datastore to hold and remember the user's search query

a mechanism to display a plurality of results of the search query to the user at another point in time

in which the search database contains paid listing in which results will allow the reader to be sent to the promoter's web-page or promotion content.

in which the registration based website is a web-based e-mail provider and the results appear within the page displaying the user's e-mail listing.

in where the search result listing contains a mechanism to dynamically display and hide graphical elements that serve as a teaser to the promotions on top of the aggregate listing of search results.

where the mechanism is an icon.

where the search result listing contains a mechanism to dynamically display and hide graphical elements that serve as a teaser to the promotions on top of the aggregate listing of search results.

where the mechanism is an icon.

A method of delivering promotions to web-based email users comprising:

a server running a web-based email system

a data repository at the web-based email provider maintaining a database of user demographics information

a process running on the web-based email provider's system interacting with

a promotions server on the network containing

a data repository containing promotions targeted towards one or more selections of demographics stored in the data repository at the web-based email provider.

wherein the promotions are displayed in a separate page than the web-based email provider's emails. The promotions are displayed in a virtual folder that is separate from the user's emails.

wherein the promotions are stored separately from the user's email and does not take up space in the user's disk quota.

wherein the promotions are sent as email to the user's account.

wherein the listing of the promotions approximate the look of email listing with attributes including name of promoter or from, offer or subject, date, expiry, distance from the user's geographic location and category or type of promotion.

wherein the listing of the promotions are sortable according to the attributes such as name, date, expiry date and distance.

wherein the system allows the promoters the ability to perform splits on promotions - the ability to simultaneously send different promotions or different versions of the same promotion, to a specific population of users and having the users receive no more than one copy or version of the said promotion. The system will provide promoters the ability to compare the effectiveness of the different promotions to each other.

further comprising a software module to allow the recipient to rate the promotion in terms of interest, value or preference and an associated data storage to store the rating information.

further comprising a software module enable the recipient of the promotion to save, sort and categorize offers by a predetermined classification, and to request the promotion to be printed and mailed to his address.

wherein promotions are automatically deleted from said promotion folder when the expiry date of the promotion is reached.

further comprising a software module to allow promotions to be searched by the text content of the promotions, name of promoter, category and geographic location of the store.

A method for displaying a preview of a message on a web page which consists of:

message content stored in a data repository

a listing of a plurality of messages on a web-page

preview content for the plurality of messages that can be visually visible overlaying a portion of the visible portion of a web-page

a triggering mechanism which will trigger the appearance of the preview content

wherein the message listing comprises promotions shown in a web-based email provider's user interface

wherein the message listing comprises emails shown in a web-based email provider's user interface.

wherein the preview is a hidden HTML layer containing graphics, HTML content, audio, Macromedia Flash content or Java applet

wherein the triggering mechanism consists of an image icon and associated script on the web-browser that will trigger the appearance of the preview content when the user hovers the mouse over it.

wherein the triggering mechanism is a script executing on a web-browser that detects the mouse positioned over certain elements of a particular list element and triggering the appearance of the preview content for the said element.

further comprising a mechanism used to delay the load of the hidden preview content until the visible preview contents are loaded.

further comprising a mechanism used to delay the load of the hidden preview content until the user activates the trigger for the preview.

wherein the visible preview will be deactivated or become hidden when the user moves the mouse of the triggering element, or after a predetermined time has elapsed.

the loading of the preview content uses a predictive algorithm to determine the order in which the content should be loaded. The algorithm may take into account, the priority given to the promotion, the size of the preview content, real-time triggering order of the previews by the user which may include the proximity of the non-yet-loaded previews from previously viewed and loaded previews.

wherein a preview content that is triggered is not made visible until the specific preview content being triggered has completed loading. While the preview content is loading, an animation or alternative graphic is shown to the user.

combined with the preview mechanisms.

A method for viewing and browsing a listing of e-mail messages , said method comprising;

generating a listing of e-mail messages within an e-mail datastore

providing a trigger mechanism for each e-mail message in the listing

said trigger will open up a window when triggered by the user, showing a summary of the e-mail content;

wherein the preview window appears over the aggregate of listing of messages when the preview content is triggered by the user and becomes hidden once the user deactivates the trigger.

wherein the preview window appears in a location relative (ie. adjacent) to the position of the message entry being triggered.

where the preview is triggered when the user moves his mouse pointer above an element in the message summary in the aggregate listing of messages; such as an icon.

wherein the visible preview will be deactivated or become hidden when the user moves the mouse off the triggering element, or after a predetermined time has elapsed.

wherein commands or buttons are placed within the preview window to allow for easy access, with commands/buttons including but not limited to: delete, reply, forward, and zoom.

where the triggering of the preview window is delayed to lessen the possibility of "false triggers" by the user moving his mouse around the screen.

where the triggering of the preview window is delayed to lessen the possibility of "false triggers" by the user moving his mouse around the screen.

A method to intergrate a new email-listing user interface onto an existing e-mail client, said method comprising:

Integrating a module with the existing e-mail client using an Application Programming Interface

when module is executed to lauch a new email-listing interface on top of the existing email-listing interface

wherein a plurality of buttons or links are added to the existing client and the new email-listing interface is launched when a plurality of buttons or links are clicked.

A method for sending and viewing "teaser" enhanced messages, said method comprising

sending a message from a message server to a recipient message client, said message including a portion that includes instructions for the delivery and viewing of "teaser" content;

determining, at the recipient system, whether the said message contains the instructions for the delivery and viewing of said "teaser" content;

when generating a summary listing of messages to show to the user, if the a message contains the said "teaser" instructions, generating a trigger mechanism to allow the user to activate the "teaser" associated with the message within the aggregate listing of messages.

Upon the user triggering the "teaser", the "teaser" content is retrieved and displayed to the recipient on the display coupled to the client the user is using to retrieve and view the message.

Wherein the message is an e-mail, the message server is an e-mail server and the recipient message system is a recipient E-mail client.

wherein the user is accessing his e-mail over a Web Browser on a computer.

wherein the user is accessing his e-mail over an Internet connected mobile device such as a cell phone or PDA.

where the "teaser" instructions are included as a "user-defined" header in the header of the said e-mail.

where the "teaser" instructions are included as a MIME attachment in the said e-mail.

where the "teaser" is triggered when the user moves his mouse pointer above the visual cue.

where the content of the "teaser" is an image.

where the content of the "teaser" is a rich-media application such as but not limited to Macromedia Flash or Java.

where the content of the "teaser" contains audio and video.

where the content of the preview contains at least one HTML form element.

A method for sending and viewing preview enhanced messages, said method comprising;

sending a message from a message server to a recipient message client, said message including a portion that includes instructions for the delivery and viewing of preview content;

determining, at the recipient system, whether the said message contains the instructions for the delivery and viewing of said preview content;

when generating a summary listing of messages to show to the user, if the a message contains the said preview instructions, generating a trigger mechanism to allow the user to activate the preview associated with the message within the aggregate listing of messages.

Upon the user triggering the preview, the preview content is retrieved from a preview server and displayed to the recipient on the display coupled to the client the user is using to retrieve and view the message.

wherein the preview content appears over the aggregate of listing of messages when the preview content is triggered by the user and becomes hidden once the user deactivates the trigger.

wherein the preview content appears in a location relative (ie. adjacent) to the position of the message entry being triggered.

where the preview is triggered when the user moves his mouse pointer above an element in the message summary in the aggregate listing of messages.

Wherein the message is an e-mail, the message server is an e-mail server and the recipient message system is a recipient E-mail system.

Wherein the message is a message that appears within the recipients' aggregate e-mail listing, for example non e-mail messages sent by providers directly to subcribers' email accounts notifying them of special offers.

wherein the recipient E-mail system is a Web-based or standalone email application.

wherein the user is accessing his e-mail over a Web Browser on a computer.

wherein the user is accessing his e-mail over an Internet connected mobile device such as a cell phone or PDA.

where the preview instructions are included as a "user-defined" header in the header of the said e-mail.

where the preview instructions are included as a MIME attachment in the said e-mail.

where the preview appears as a layer on top of the said e-mail list when the user activates the preview trigger

where the preview is triggered when the user moves his mouse pointer above the visual cue.

where the preview layer is a HTML layer.

where the content of the preview is an image.

where the content of the preview is an image.

where the content of the preview is a rich-media application such as but not limited to Macromedia Flash or Java.

where the content of the preview is a rich-media application such as but not limited to Macromedia Flash or Java.

where the content of the preview contains audio and video.

where the content of the preview contains at least one HTML form element.

where the recipient E-mail system is a proprietary e-mail system and reader, such as AOL.

where the recipient E-mail system is a POP email server and POP e-mail client such as Microsoft Outlook.

where the preview layer is a box containing preview content that appears adjacent below the listing of the e-mail that contains the said preview instructions.

where the preview layer is an animation that appears and moves across the screen with its background set to transparent.

where the preview content contains a plurality of interactive applications which allows the user to interact with the content.

where the interactive application communicates with an application server resident on the Internet.

wherein the triggering mechanism is a script executing on a web-browser that detects the mouse positioned over certain elements of a particular list element and triggering the appearance of the preview content for the said element.

further comprising a mechanism used to delay the load of the hidden preview content until the visible preview contents are loaded.

further comprising a mechanism used to delay the load of the hidden preview content until the user activates the trigger for the preview.

wherein the visible preview will be deactivated or become hidden when the user moves the mouse of the triggering element, or after a predetermined time has elapsed.

wherein the loading of the preview content uses a predictive algorithm to determine the order in which the content should be loaded. The algorithm may take into account, the priority given to the promotion, the size of the preview content, real-time triggering order of the previews by the user which may include the proximity of the non-yet-loaded previews from previously viewed and loaded previews.

wherein a preview content that is triggered is not made visible until the specific preview content being triggered has completed loading. While the preview content is loading, an animation or alternative graphic is shown to the user.

further comprising the loading of preview content using a streaming mechanism.

further comprising the loading of preview content taking advantage of the persistent HTTP protocol, to ensure that a reduced number of connections are established.

A method for sending and viewing preview enhanced e-mail messages, said method comprising;

sending an E-mail message from an E-mail server to a recipient E-mail system over a public network, said E-mail message including a portion that includes instructions for the delivery and viewing of e-mail preview content;

determining, at the E-mail recipient system, whether the said E-mail contains the instructions for the delivery and viewing of said preview content;

when generating a listing of e-mails to show to the user, if the an E-mail contains the said preview instructions, generating a visual cue and trigger mechanism to allow the user to activate the preview associated with the E-mail.

Upon the user triggering the preview, the preview content is retrieved from a preview server and displayed to the recipient on a display coupled to the client the user is using to retrieve and view the e-mail.

wherein the recipient E-mail system is a Web-based email application.

wherein the user is accessing his e-mail over a Web Browser on a computer.

wherein the user is accessing his e-mail over an Internet connected mobile device such as a cell phone or PDA.

where the preview instructions are included as a "user-defined" header in the header of the said e-mail.

where the preview instructions are included as a MIME attachment in the said e-mail.

where the preview appears as a layer on top of the said e-mail list when the user activates the preview trigger

where the preview is triggered when the user moves his mouse pointer above the visual cue.

where the preview layer is a HTML layer.

where the content of the preview is an image such as a Gif or Jpeg.

where the content of the preview is a rich-media application such as Macromedia Flash or Java.

where the content of the preview contains audio and video.

where the content of the preview contains at least one HTML form element.

where the recipient E-mail system is a proprietary e-mail system and reader, such as AOL.

where the recipient E-mail system is a POP email server and POP e-mail client such as Microsoft Outlook.

where the preview layer is a box containing preview content that appears adjacent below the listing of the e-mail that contains the said preview instructions.

where the preview layer is an animation that appears and moves across the screen with its background set to transparent.

where the preview content contains a plurality of interactive applications which allows the user to interact with the content.

where the interactive application communicates with an application server resident on the Internet.

wherein the triggering mechanism is a script executing on a web-browser that detects the mouse positioned over certain elements of a particular list element and triggering the appearance of the preview content for the said element.

further comprising a mechanism used to delay the load of the hidden preview content until the visible preview contents are loaded.

further comprising a mechanism used to delay the load of the hidden preview content until the user activates the trigger for the preview.

wherein the visible preview will be deactivated or become hidden when the user moves the mouse of the triggering element, or after a predetermined time has elapsed.

wherein the loading of the preview content uses a predictive algorithm to determine the order in which the content should be loaded. The algorithm may take into account, the priority given to the promotion, the size of the preview content, real-time triggering order of the previews by the user which may include the proximity of the non-yet-loaded previews from previously viewed and loaded previews.

wherein a preview content that is triggered is not made visible until the specific preview content being triggered has completed loading. While the preview content is loading, an animation or alternative graphic is shown to the user.

further comprising the loading of preview content using a streaming mechanism.

further comprising the loading of preview content taking advantage of the persistent HTTP protocol, to ensure that a reduced number of connections are established.

A network comprising:

a user node having a browser program coupled to said network, said user node providing requests for information on said network;

a central data repository having memory in which is stored incentive offer data and remote user data;

a content provider affiliate node having a respective affiliate web site responsive to requests for information from said user node to provide content and promotions space for display of targeted promotions to said user node.

a promotions client node responsible for pulling promotions content from an promotions server node in response to a user request from said user node to display.

a promotions server node in operative association with the central data repository responsive to a request from said promotions client node and deliver promotions to said promotions client

whereby said promotions content from said selected advertiser node is displayed at said user node.

where the affiliate website is a website running a web-based email application.

further comprising a system in which recipients of the promotions may request for the promotions be printed and mailed to them comprising:

at least one printing server operatively associated with the promotions server responsive to a request from said promotions server node to execute the printing instructions of a plurality of promotions

at least one printer operatively associated with the printing server responsive to a request to print said promotion or coupon.

further comprising the capability to address and mail the said promotions to the online promotion recipient

further comprising the capability to aggregate pre-printed promotions and print other electronic promotions in conjunction with the printing instructions, using information about the receipient of the promotion, the type of the promotion or the geographic location of the recipient or promotion merchant.

wherein the promotions server serves to the plurality of user nodes of the affiliate web-sites folder or listing of promotions, wherein the promotions appear in a separate listing from the content provided by the affiliate web-sites.

A method of delivering promotions to web-based email users comprising:

a server running a web-based email system

a data repository at the web-based email provider maintaining a database of user demographics information

a process running on the web-based email provider's system interacting with

a promotions server on the network containing

a data repository containing promotions targeted towards one or more selections of demographics stored in the data repository at the web-based email provider.

wherein the promotions are displayed in a separate page than the web-based email provider's emails. The promotions are displayed in a virtual folder that is separate from the user's emails.

wherein the promotions are stored separately from the user's email and does not take up space in the user's disk quota.

wherein the promotions are sent as email to the user's account.

wherein the listing of the promotions approximate the look of email listing with attributes including name of promoter or from, offer or subject, date, expiry, distance from the user's geographic location and category or type of promotion.

wherein the listing of the promotions are sortable according to the attributes such as name, date, expiry date and distance.

wherein the system allows the promoters the ability to perform splits on promotions - the ability to simultaneously send different promotions or different versions of the same promotion, to a specific population of users and having the users receive no more than one copy or version of the said promotion. The system will provide promoters the ability to compare the effectiveness of the different promotions to each other.

further comprising a software module to allow the recipient to rate the promotion in terms of interest, value or preference and an associated data storage to store the rating information.

further comprising a software module enable the recipient of the promotion to save, sort and categorize offers by a predetermined classification, and to request the promotion to be printed and mailed to his address.

wherein promotions are automatically deleted from said promotion folder when the expiry date of the promotion is reached.

further comprising a software module to allow promotions to be searched by the text content of the promotions, name of promoter, category and geographic location of the store.

. A method for displaying a preview of a message on a web page which consists of:

message content stored in a data repository

a listing of a plurality of messages on a web-page

preview content for the plurality of messages that can be visually visible overlaying a portion of the visible portion of a web-page

a triggering mechanism which will trigger the appearance of the preview content

wherein the message listing comprises promotions shown in a web-based email provider's user interface

wherein the message listing comprises emails shown in a web-based email provider's user interface.

wherein the preview is a hidden HTML layer containing graphics, HTML content, audio, Macromedia Flash content or Java applet

wherein the triggering mechanism consists of an image icon and associated script on the web-browser that will trigger the appearance of the preview content when the user hovers the mouse over it.

wherein the triggering mechanism is a script executing on a web-browser that detects the mouse positioned over certain elements of a particular list element and triggering the appearance of the preview content for the said element.

further comprising a mechanism used to delay the load of the hidden preview content until the visible preview contents are loaded.

further comprising a mechanism used to delay the load of the hidden preview content until the user activates the trigger for the preview.

wherein the visible preview will be deactivated or become hidden when the user moves the mouse of the triggering element, or after a predetermined time has elapsed.

wherein the loading of the preview content uses a predictive algorithm to determine the order in which the content should be loaded. The algorithm may take into account, the priority given to the promotion, the size of the preview content, real-time triggering order of the previews by the user which may include the proximity of the non-yet-loaded previews from previously viewed and loaded previews.

wherein a preview content that is triggered is not made visible until the specific preview content being triggered has completed loading. While the preview content is loading, an animation or alternative graphic is shown to the user.

combined with the preview mechanisms.